FINAL REPORT

19970148

BUSINESS PROSPECTUS DEVELOPMENT STUDY FOR A SASKATCHEWAN SLAUGHTER PLANT

March 1999

Funded by the Agri-Food Innovation Fund

Prepared by: Saskatchewan Bison Association

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1.0 Executive Summary

Bison are currently one of the fastest growing alternative livestock species produced in Western Canada. Demands for Bison products are on the increase in both domestic and international markets.

Bison producers in Saskatchewan have identified the potential growth for this product and have kept pace by increasing their production at the highest rate of any province in Canada.

The Saskatchewan Bison Association (SBA) recognizes that increased production in their region will escalate the need for enlarged consumer markets and a facility for the processing of their animals. The Association has identified, that although the Canadian meat processing sector is one of the most sophisticated in the world, the specific market and processing expertise for their industry lies with an organization such as the North American Bison Cooperative (NABC) in North Dakota, USA, which has indicated an interest in establishing a plant in Western Canada..

Over the past year the SBA has undertaken a number of activities to gather information on their industry and to support an initiative which will entice the NABC to locate their next plant in Saskatchewan.

The following proposal outlines a process whereby the SBA will arrange for the construction and financing of a European Union approved slaughter facility, which will upon completion be transferred for costs and carrying charges to the NABC for their operation and management.

2.0 Project Overview

For thousands of years Bison herds thundered freely across the plains of Western Canada. They were the sustaining life force of plains Aboriginal people. To this day, the Bison symbol is a strong cultural icon for First Nations people.

Early white settlers to the plains region were also users of Bison. Throughout the 1800s and into the early 1900s Bison herds were hunted almost to extinction. From those times until the mid 1980s Bison were mainly seen in small herds in national parks or zoos.

Times have changed. Consumer demands for diverse meat products which are lean and high in quality as well as changes in the traditional agricultural commodity sector have led to increased domestic production of alternative species.

Bison production has been a leader in alternative livestock farming. Production in Canada has gone from almost non-existence ten years ago to a growth industry of approximately 50,000 head today with a projected increase to over 100,000 head by the year 2000. In a herd count conducted in 1997 by the Saskatchewan Bison Association, it was ascertained that while Alberta had the highest population count of the prairie provinces, Saskatchewan had the highest percentage of females for total herd indicating a positive growth factor for this industry in this province. Committed producers, unlimited pasture land, low-priced feed grain production and favourable climatic conditions for Bison are all factors which will contribute to the future growth of this species.

The membership of the Saskatchewan Bison Association (SBA) has grown steadily along with the increase in herds in Saskatchewan. The two hundred and fifty-three

member association is a vibrant group who are actively involved in all aspects of alternative livestock in Saskatchewan including: production, processing and marketing.

The Saskatchewan Bison Association is currently liaisoning with other groups to promote and develop their industry.

The Association is currently working with Canadian Western Agribition to construct a 1.7 million dollar world class alternative livestock show and auction facility, funded by the Canada-Saskatchewan Ag Innovation Fund which will attract business from across North America.

Agribition, an annual livestock show held in Regina, is the largest Bison show and sale held in Canada (and possibly North America).

SBA has lobbied to have the Canadian Bison Association office move to the site of the new livestock and auction facility in Regina, Saskatchewan.

The Association applied for a grant from the Agri-Food Innovation Fund for a grant for "Development and Market testing of value added products for Bison meat". This grant (non repayable) has been approved and awarded to the Saskatchewan Bison Association in the amount of $445,000.

The AFIF Board approved this proposal on the following conditions:

1. That a bison slaughter facility is constructed in the province of Saskatchewan;
2. That any commercial processing resulting from this marketing research must be undertaken in Saskatchewan, unless permission is obtained from the Agri-Food Innovation Fund;

3. That a report be prepared on test marketing in Europe; who to contact, what were pitfalls, what worked, what didn't, what is the marketing chain; this will be useful to the Saskatchewan Bison Association members and other marketers.

4. That the Saskatchewan Bison Association not sell rights to recipes, brands, trademarks, or other proprietary rights without prior approval of Agri-Food Innovation Fund.

The Agri Food Innovation Fund (AFIF) has established a Research chair at the Western College of Veterinary Medicine at the University of Saskatchewan. This represents long term funding of two million dollars over eight years. The objectives of this research are to improve herd management, disease control and nutrition to expand and enhance current primary production of specialized livestock species.

The board of directors overseeing this chair includes a representative from the Saskatchewan Bison Association.

The first area of research which is being conducted is in regards to semen testing.

The Association Membership has recognized that as production increases there will be a need for an EU approved slaughter/processing plant in Western Canada. In a 1998 corporate and investment survey conducted by the Association, members indicated that they were prepared to invest up to a million dollars to have a slaughter plant built in Saskatchewan. This survey was an initial indicator that an active campaign to sell opportunities to invest in a Saskatchewan plant would be well received and could result in investment in a plant well in excess of a million dollars from Association members

alone.

The Association knows that the Canadian meat export industry is healthy and growing. Canada has a strong image as a premier exporter of meat products.

2.1 Advantages for Canadian processors of export meat products which could be extrapolated to an EU Bison slaughter plant in Saskatchewan include:

2.1.1 Conditions which engender the production of unlimited livestock of the highest quality. Canadian animal genetics are sold worldwide;

2.1.2 Favourable trade agreements and lower tariffs with key markets such as Asia and Europe;

2.1.3 The recognition by EU countries of Canada's food safety standards and meat grading systems;

2.1.4 International recognition and a willingness to pay for the premium quality of Canadian meat;

2.1.5 A relatively low Canadian dollar relative to other currencies;

2.1.6 A trained workforce and favourable input costs.

Canadian expertise in building and operating facilities for the processing and marketing of livestock is one of the highest in the world. However, the Saskatchewan Bison Association is cognizant of the fact that this broad based expertise might be further enhanced for their industry with the addition of knowledgeable players.

The North American Bison Cooperative of New Rockford, North Dakota, USA is

known to have developed the expertise in organizing producers, setting up and running a successful Bison slaughter operation. Statistics indicate that the numbers of animals processed and sold have increased steadily since the plant began operation. Generally Canadian producers and specifically many Saskatchewan producers have shown support for NABC by purchasing shares in their plant. Saskatchewan is the home of many successful producer cooperatives such as the Saskatchewan Wheat Pool, for example. It is therefore natural that Bison producers in Saskatchewan would look to another cooperative in their quest to have a world class slaughter plant built for their animals.

The Saskatchewan Bison Association is fully aware that the North American Bison Cooperative is planning on the construction of a satellite slaughter plant in one of the three prairie provinces. It is the Association's intention to successfully negotiate the placement of the proposed NABC satellite plant at a site in Saskatchewan.

2.2 In order to achieve this goal the Saskatchewan Bison Association, along with the Governments of Canada and Saskatchewan have undertaken several activities to gather information and support for this initiative. The activities have included:

2.2.1 A Profile of Bison Populations in Western Canada

The first activity undertaken by the Consultants was to conduct a profile of Bison populations in Western Canada. Associations and others across the prairies were contacted for lists of producers. A survey was developed and mailed to producers from the gathered lists. This mailout was followed by a phone call from a member of the consulting team. Information was compiled on a data base.

Population increases were recorded in all provinces. Alberta recorded a seventy-five per cent increase, Manitoba an eighty-three per cent increase, British Columbia a thirty-three per cent increase and Saskatchewan a seventy-four per cent increase.

The total recorded herd count from the survey was approximately forty-eight thousand including herds in parks.

2.2.2 SBA member meetings for the distribution of information and the garnering of producer support

2.2.3 A solicitation of proposals from urban and rural communities within Saskatchewan for a plant site

In January, 1998 letters were mailed to Regional Economic Development Services offices and other Economic development offices in Saskatchewan requesting proposals from groups wishing to have a Bison slaughter plant in their community.

Fourteen communities responded. The Consultants developed a proposal assessment scale and North Battleford, Saskatchewan was the strongest bid. The North Battleford proposal has been attached in the appendices.

2.2.4 The selection of a site

2.2.5 Garnering support from other interested players such as First Nations, non-member producers, financial investors, etc.

2.2.6 A SBA member corporate and investment potential survey

In March of 1998, the Consultants prepared a survey and mailed it out to Saskatchewan Bison Association members asking for input into a proposed plant

corporate structure, amount of investment by producers and a list of outlets in which Bison meat is distributed in Saskatchewan.

Forty-two per cent of the respondents returned their surveys.

It appears that the number of Bison in Saskatchewan had increased substantially since the 1997 count. The June, 1997 count was approximately 7,749 animals which accounted for approximately eighty-five per cent of producers. The March, 1998 count was approximately 6,363 animals which encompassed only forty-two per cent of the same producer group.

Forty-nine per cent of the respondents chose an NABC satellite as their first choice.

The survey return showed a significant increase in the amount of money producers were willing to invest in a plant if it was built in Saskatchewan as opposed to another province. Sixty-eight per cent of the respondents indicated that they would invest $5,000 or more if the plant was in Saskatchewan while only twenty-five per cent said they would invest at $5,000 or more if the plant was elsewhere. Twenty-nine per cent of the respondents stated that they would not invest in a plant outside of Saskatchewan.

A list was compiled of outlets in Saskatchewan which sold Bison.

2.2.7 Other Research

Other research was conducted by the Consultants on the SBA's behalf.

A literature review was conducted about the slaughter industry as a whole and

specifically about the Bison business.. Documents reviewed included: industry periodicals, information on Bison slaughter plants, regulations for the construction and operation of EU plants and Bison sale catalogues.

The Consultants also attended various Bison auctions both in the United States and in Canada.

Wholesalers who market Bison meat were also contacted and interviewed.

The above activities have lead to the development of the following business proposal from the Saskatchewan Bison Association to the Board of Directors of the North American Bison Cooperative. The goal of this project is to build an EU approved Bison slaughter plant for Western Canadian Producers by the Saskatchewan Bison Association for purchased transference to NABC upon the completion of facility construction.

3.0 Proposed Community Site

In early 1998, the Saskatchewan Bison Association invited site proposals from communities that would be interested in bidding on a possible bison slaughter facility. The Saskatchewan Bison Association has adopted a pro-active approach in attracting this plant to a location in the province and wished to have proposals which provided community interest and support for the development.

3.1 A total of fourteen communities answered the call for proposals with the following requested criteria:

3.1.1 Land availability and pricing (10-15 acres)

3.1.2 Sewage capacity (2.5 million litres annually)

3.1.3 Water Supply capacity (10 million litres annually)

3.1.4 Related (Complimentary) Industries

3..1.5 Tax Abatement Policies

3.1.6 Transportation Arteries (Distance from international airport with wide body container capacity)

3.1.7 Community Capacity

3.1.8 Training availability

3.1.9 Bison Herd Proximity

3.1.10 Economic Development Infrastructure

The site recommended by the Consultants and approved by the directors of the Saskatchewan Bison Association is the City of North Battleford. Information about the city can be accessed on the internet at www.city.north-battleford.sk.ca. The full proposal from the city is contained in Appendix 7.3

3.2 The Selection of the North Battleford Site

The key reasons for selecting the North Battleford site were:

3.2.1 Strategic Location

North Battleford is situated in the heart of the Northwest quadrant of Saskatchewan.

In a population count conducted in 1997 this quadrant contained 41% of the bison

population for the province. There is good reason to believe that it continues to be the most rapidly expanding area.

North Battleford is situated on the Yellowhead highway 240 miles east of Edmonton, 170 miles of which is twinned.

Edmonton international airport offers wide body container service and is easily accessible for air transport.

North Battleford is situated 85 miles east of Saskatoon, on the Yellowhead highway. The entire distance is twinned. The Saskatoon airport has the capability of landing wide body jets which could accept international container business.

North Battleford is approximately 500 road miles to Grande Prairie, Alberta which brings the balance of the Alberta bison population easily within the 400 miles to qualify for freight equalization.

3.2.2 Land Location

The site proposed by the North Battleford committee is on Hereford Street in the Industrial area on the eastern edge of the city, just a few blocks north of the Yellowhead highway. The site is zoned properly and is currently leased to a local farmer for grain production. The land has a good slope from North to South and is not currently sub-divided, therefore this site can be matched to an exact size for slaughter plant development.

Neighbours include the Maple Leaf bacon plant and Can Grow Feed processors.

The city is currently upgrading Hereford Street to accommodate heavy traffic and

will extend this street at no cost to this plant. Highway number 40 (from Prince Albert) is soon to be re-built to terminate at the intersection of the Yellowhead highway and Hereford Street, moving from the current intersection west of the Western Development Museum.

The city of North Battleford is requesting $25,000 per acre for this property, but upon signing a development agreement is prepared to offer a development incentive equal to the cost of the land. They are also prepared to bring city services (water and sewage) to this site at no cost to the development.

A favourable tax abatement agreement would also be available for at least the first five years of operation. The full property tax estimate for a 1.5 million plant would be just under $30,000 per year.

3.2.3 Community Support

The Economic Development committee of the City of North Battleford prepared the site proposal contained in Appendix 7-3. It is worthy to note that the first eleven pages highlight the support from the community, surrounding bison supporters, and complimentary business before going into the site proposal requirements.

It is important to consider that a plant of this size is much more important to a city like North Battleford than it would be to the economic development department of a city the size of Saskatoon.

There has been some media speculation about the possibility of the bison slaughter plant locating in or near the city. This has, in turn, caused a great deal of

interest in constructing bison feedlots in the area.

3.2.4 Other Advantages

The water and sewage charges were very favourable compared to the other proposals.

Natural gas and electrical costs are identical to the balance of the province.

Training facilities are available Northwest Regional College as well as SIAST in Saskatoon.

The local action service has invested considerable dollars building a new sales barn and equipped to handle specialized livestock including bison. This facility is within several miles of the proposed location.

A stable local work force is available in North Battleford. The workforce includes people trained in both slaughter and processing activities. The community has not been subject to boom / bust cycles which inflate wage costs.

The city population is just over 14,000 with a good mix of professional, trades and labour. Good housing is affordable and at a considerably lesser cost than larger centres, yet is only just over an hour away from Saskatoon if larger city amenities are required.

4.0 Business Concept

The Saskatchewan Bison Association is prepared to organize, design, finance and construct an European Union approved Bison slaughter facility in the City of North Battleford. Necessary development agreements, financing and design would take place during the fall and winter of 1998-99, with construction to begin in the spring of 1999. The plant would be ready to receive slaughter animals in January 2000.

A Corporation would be formed of interested bison producers, who in a 1998 survey indicated investment of up to a million dollars for a Saskatchewan plant, community businesses, First Nations and other interested parties. This corporation would in turn sign an agreement to sell the land and building to the North American Bison Co-operative upon completion at the actual cost plus carrying charges associated with the project.

This corporation would work closely with the board of directors and management of NABC during design and construction to insure an end product which is suitable and efficient for the co-operative.

The Saskatchewan Bison Association has been working closely with the North Battleford committee, the provincial government, and possible lenders. No formal loan applications or commitments have been made with regard to equity or financing but all necessary players have come to the table and the Association knows that a deal can be put together to accomplish this goal.

The Corporation will be guided by a Management Committee consisting of representatives of the investors and the Co-operative. Details will need to be negotiated by all the parties but the obvious representatives include:

4.1 The City of North Battleford

4.2 Saskatchewan Bison Association

4.3 Bison producer / investor representative

4.4 North American Bison Co-operative

5.0 Costs and Financing

5.1 Land

The City of North Battleford has prepared a site proposal which recommends a parcel of land on Hereford Street in the Industrial park at the east end of the city, a few blocks north of the Yellowhead highway.

The site is presently leased for agricultural grain production and can be sized to suit the purchaser.

Hereford Street is presently being upgraded to withstand heavy traffic and will be extended to the entrance of the slaughter facility at no cost to the facility.

This site proposal lists the land cost at $25,000 per acre, but upon the signing of an agreement, a development incentive equal to this purchase price will be granted to the project.

The land size is estimated at ten (10) acres for a total estimated cost of two hundred and fifty thousand dollars.

Total Land	**$ 250,000**

5.2 Building

The information received from the North American Bison Co-operative indicates that a facility with an area of 12,000 square feet would be sufficient to incorporate all services required to slaughter and process ten thousand bison per year.

Research will need to be conducted by design engineers as to the most efficient and cost effective structure to meet all requirements.

Dan Prefontaine from the Department of Applied Microbiology and Food Science at the University of Saskatchewan has suggested a design using Zer-O-Loc composite panels, similar to recent additions at Intercontinental Packers and Melfort Meats.

This is the system that Mr. Prefontaine used in pricing the building at $130.00 per square foot which seems extremely high, however, in discussions with Mr. Leslie Boyer of Thermo Design Insulation Ltd., this quotation is deliberately on the high side to be conservative and this price also includes all freezers and coolers.

For the purpose of cost allocation between building and equipment $20.00 per square foot has been assigned to equipment, leaving $110.00 per square foot as building cost.

A letter from Leslie Boyer of Thermo Design Insulation Ltd. providing the quotation and a brochure on the Zer-O-Loc system is enclosed in Appendix 7.6.

The building costs used in this report include the following:

Design and Engineering		**$ 100,000**
Main Building	**12,000 sq ft @ 110.00**	**1,320,000**
Storage Building	**3,000 sq ft @ 25.00**	**75,000**
Total Building		**$ 1,495,000**

5.3 Equipment

The most critical variable in estimating overall cost of this project is in the selection of equipment, and an operating plan for the plant.

Dan Prefontaine from the Department of Applied Microbiology and Food Science at the University of Saskatchewan has supplied equipment costs based on research available to his department. The information supplied by his office is included in Appendix 7.5 and has been used as a basis for cost estimates.

Prefontaine has also pointed out that there is a large quantity of used equipment presently on the market that could reduce the equipment costs substantially. An EU approved slaughter facility was constructed at 100 Mile House in British Columbia, which has been converted to a processing facility only. The slaughter equipment has been put into storage and may be available for this plant at a substantial savings.

The operational plan for this facility could also include a full processing kitchen for value added products but this could be sub-contracted to other facilities in Saskatchewan to avoid this substantive equipment cost. However this must be decided as part of an operational plan by the NABC management. The method of operation will dictate costs.

For the purposes of this plan the equipment values will be stated at estimated current new costs for a full plant including a kitchen, based on the information from the University of Saskatchewan.

5.3.1 Estimated Costs of Equipment

Kill equipment		**$ 231,450**
Sausage Kitchen		**294,000**
Office equipment		**40,000**
Miscellaneous		**75,850**
Refrigeration	**12,000 sq ft @ $20.00**	**240,000**
Total Equipment		**$ 881,300**

5.4 Pavement

An allowance for paving entrance driveway parking lot and circumference of the building.

Total Pavement	**$ 50,000**

5.5 Contingency

A contingency of just over 4.5% is allowed for fluctuations in costs and exchange on the U.S. equipments imports required.

Total Contingency	**$ 123,700**

5.6 Equity Contribution

5.6.1 The City of North Battleford is prepared to offer a development incentive equal to the price of the land in this project. As the land cost used in this report is two hundred and fifty thousand dollars an offsetting amount has been assigned to Equity.

$ 250,000

5.6.2 A committee, consisting of bison producers located in the immediate area around the City of North Battleford, is prepared to raise equity for the project. From preliminary discussions with bison producers, related business, tribal councils and community leaders, the committee is confident that they can raise in excess of four hundred thousand dollars.

$ 400,000

5.6.3 The Government of the Province of Saskatchewan is very supportive of this initiative. The Saskatchewan Agri-Food Equity Fund is prepared to make an equity contribution to this project to increase overall equity to 37.5% of the project costs.

$ 400,000

Total Equity **$ 1,050,000**

5.7 Debt Financing

Representatives from the Agri-Food Equity Fund have held preliminary discussions with several possible lenders including the Saskatchewan Opportunities Corporation, Farm Credit Corporation, and several chartered banks. Based on these discussions there is good reason to believe that debt financing the balance of 62.5% of the project

cost is possible.

Total Debt	**$ 1,750,000**
Total Equity and Debt Financing	**$ 2,800,000**

5.8 Recap of Project Costs and Financing

Costs		Financing	
Land	$ 250,000	Equity	$1,050,000
Building	1,495,000	Debt	1,750,000
Equipment	881,300		
Paving	50,000		
Contingency	123,700		
	$2,800,000		$2,800,000

6.0 Conclusion

The Saskatchewan Bison Association has become a large and dynamic force in the specialized livestock field in Canada. The Association has focused on the direction that the industry is taking and in particular the organization of a producer owned slaughter facility.

In this proposal the SBA has demonstrated that they are willing to be pro-active and will assist the North American Bison Cooperative in accomplishing their objective of building a Canadian slaughter plant.

The Saskatchewan Bison Association can and will supply the leadership, organize the financing and supervise construction of a facility for NABC in the City of North Battleford. The SBA has the ability and resolve to accomplish this goal.

7.0 Appendices

7.1 Bison Population Count Report

7.2 Site Solicitation Mailout

7.3 North Battleford Proposal

7.4 Member Survey for Investment in a Plant

7.5 University of Saskatchewan - Cost of Equipment List

7.6 Thermo Design Insulation Ltd. Information

Appendix 7.1

Bison Population Count Report

Report for the Saskatchewan Bison Association

PROFILE OF BISON POPULATIONS IN WESTERN CANADA

July 12, 1997

Prepared by:

Al Christensen, BMG Business Management Group

and

Sheila Gamble, Trace Consulting Inc.

REPORT FOR THE SASKATCHEWAN BISON ASSOCIATION

PROFILE OF BISON POPULATIONS IN WESTERN CANADA

July 12, 1997

1.0 Executive Summary

The Saskatchewan Bison Association has recognized that their industry has matured and grown at a rapid rate within the last few years. The increases in producer numbers and increased market demands indicate that investigative work has to be undertaken in the areas of: producer networking, slaughter/processing feasibility and market planning.

In order to undertake these initiatives Sask. Bison has develop a research plan to benchmark the industry and investigate future opportunities. The research plan started with a population count of Bison herds in Western Canada.

Associations and others were contacted for lists of producers across Western Canada. A survey was developed and mailed to respondents. This mailout was followed up with a telephone call from the consulting team. The information was tabulated on a data base system.

Population increases were recorded in all provinces. Alberta reported 18,417 females from a survey done in May, 1997. Saskatchewan increased from 2,800 in 1993 to 7,500 counted animals in 1997. First Nations have become Bison producers in all provinces.

National and provincial parks officials were contacted regarding the number of animals in free ranging herds under their management. They reported approximately 7,150.

The information gathered in this population survey indicates numbers of animals are large enough and are increasing at a rate which justifies further investigation into the fields of processing and marketing.

2.0 Project Background

Bison producers have played an important role in the development of the alternative livestock industry. The Bison industry in Canada has risen from almost non-existence ten years ago to a growth industry which has approximately 45,000 head (around 8,000 in Saskatchewan) today. Projections for the year 2000 predict that the Bison population will reach numbers in excess of 100,000. Bison producers and product marketers recognize that the unfilled market potential for this meat product is great.

In order to fulfil and take advantage of this market opportunity, the Saskatchewan Bison Association recognizes that: (1) expanded and additional Bison livestock operations will have to be put in place (2) inter-provincial facilities for processing in Canada which meet international requirements will need to be built (3) conduits for marketing these products will need to be developed and (4) producer networking will have to be intensified.

The Saskatchewan Bison Association and the Government of Saskatchewan are in the process of gathering information on the above identified strategic needs.

Trace Consulting Inc has been retained by the Government of Saskatchewan to research and compile information on their behalf.

The first step has been to develop a comprehensive profile of the Bison populations in Western Canada. During the last six weeks the project team has been engaged in contacting Bison producers and associations across Western Canada.

This report outlines the findings to date.

3.0 Methodology

The following steps were undertaken to gather the information required for an accurate population count of Bison herds:

3.1 A list of possible respondents for the survey was compiled. Bison associations, a membership list from **Smoke Signals,** First Nations, Government (Federal and Provincial) and other individuals/groups were contacted.

3.2 In order to gather the most extensive and accurate information, a survey format was designed which would put the project team in personal contact with each respondent. Two survey forms were developed: one for individual Bison producers and one for First Nation communities, whose Bison ownership is different. It was also recognized that there are many Bison producers who are not members of associations. In order to locate these producers, members who received surveys were asked if they knew of other respondents.

3.3 Survey forms and accompanying letters were sent to respondents in Manitoba, Saskatchewan, Alberta and British Columbia except for Alberta First Nations who were surveyed by telephone contact only.

3.4 Follow up calls were made by the project team to groups/individuals who had been mailed surveys. Return calls were made until the majority of respondents were reached.

3.5 Survey results were recorded via the telephone, or by fax or mail sent by respondents.

3.6 The results were entered into a data base.

3.7 The information was tabulated and collated into a report.

4.0 Results

4.1 Survey Implementation

Survey implementation went smoothly. Adaptations were made to the survey method as incoming information was gathered.

The first survey respondents the project team contacted were in British Columbia and Alberta. After the initial approximately thirty calls, the project team were informed by two Alberta Bison Association members that they had recently conducted a survey for B.C. and Alberta in May of 1997. A decision was made to use their data for Alberta and B.C., but that some followup calls to respondents would be made in July to identified respondents on the project list to confirm data. It was also noted that First Nations within Alberta were not surveyed for the Alberta Bison Association survey. Therefore calls were made to First Nation communities in Alberta during the first week of July. It was discovered that they have significant numbers of Bison. Fourteen of forty-seven Bands reported having herds. The information is still incoming from these groups.

The Alberta report of 18,417 females appeared to be high to the project team compared to data on file from 1993 and reports from other provinces. The project team surveyed animal populations in national and provincial parks and discovered that several large free range herds exist in Northern Alberta, NWT, Yukon and Northern B.C. (approximately 7,000 animals). Inquiries are being made as to whether these herds have been included in the data. (See appendices - Park data)

Approximately seven hundred calls were made to respondents in order to gather information. As it is the summer season and most producers are working outside, respondents were sometimes difficult to reach. The majority of calls were made during main meal times and in the late evening.

Respondents were very cooperative in giving information. Of the approximately four hundred respondents contacted less than five refused to answer the survey. Besides the respondents who were contacted by telephone, many respondents from B.C. and Alberta sent their completed surveys in by mail.

4.1.1 Organizations/Producers Contacted for the Population Count

Organization	Man.	Man. First Nations	Sask.	Sask. First Nations	Alberta	Alberta First Nations	B.C.	Parks	Others
Listed Contacts	76	61	144	72	250	47	46	18	15
Contacted	65	58	134	70	Not counted	47	Not counted	14	15
Per Cent of Total	85.5%	95%	93%	97%		100%		77%	

A number of respondents have been contacted, but no survey results have been obtained from them. They have offered to fax in their information or be contacted at a later date. When this information is obtained, it will be entered into the data bank.

Most of the producers contacted were very sure of the total number of animals in their herds and specifically their mature cow populations. However, in other areas such as meat bulls and 1996 bull calves, producers were less sure. The female population, including mature cows, 1995 and 1996 calves were used for future population growth projections.

1997 calves were not recorded in the data. Most producers reported that they had not completed calving as yet for this year.

Most respondents indicated that they were going to increase their herd size within the next two to five years. Reasons given for not increasing herd size included:

- lack of pasture
- not enough time
- retirement
- lack of funds, etc.

The majority of respondents indicated that they would be increasing their herd through natural selection from within their own herds. Several indicated that they would be increasing both through natural selection and by buying from outside. Less than ten respondents indicated that they had or would be buying animals from the United States.

4.2 Tabulated Results

The information that was garnered from the survey respondents can be utilized in various ways. For the purposes of this study the focus is on the data that will indicate current and future population trends. A data base has now been established and information can be added or extricated when necessary.

The majority of the tabulated results has been generated below in tables.

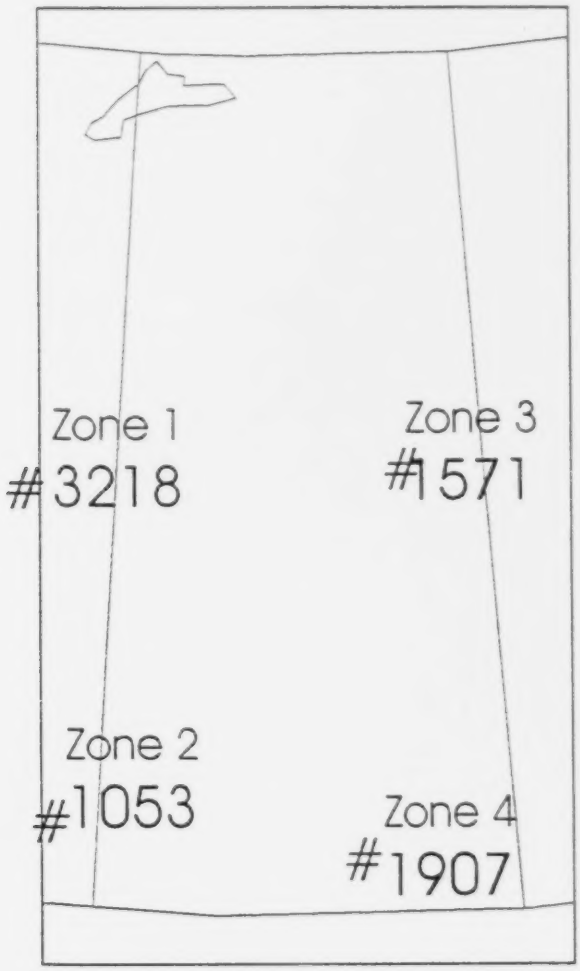
4.2.1 Saskatchewan Producer Data (All Groups)

Zone:	Total Herd:	Breeding Females 3 yrs & up	Non-Breeding Females	Breeding bulls	1996 Bull Calves	Meat Bulls:
Zone 1	3218	1701	937	232	259	72
Zone 2	1053	458	361	94	60	62
Zone 3	1571	753	458	128	16	42
Zone 4	1907	997	512	150	164	73
Total Herd	7749* **	3909	2268	604	499	249

*** It should be noted that total herd numbers don't necessarily match the herd breakdowns as some producers did not give specific data.**

**** It is projected that the total number for Saskatchewan will exceed 8,000 animals once the final count is complete. To date 93% of the information has been collected.**

4.2.2 Population Zones for Bison in Saskatchewan



Zone Boundaries:

North/South #5 Highway

East/West #2 Highway

Total recorded to July 12, 1997: 7,749

4.2.3 Manitoba Producer Data (All Groups)

Total Herd:	Breeding Females 3 yr. & up:	Non-Breeding Females:	Breeding Bulls:	1996 Bull Calves	Meat Bulls:
5115	2253	1222	174	556	261

4.2.4 Bison Count in Parks including B.C. Yukon, NWT, Alta, Sask. and Manitoba

Park:	Contact:	Numbers:
Wood Buffalo Park (Alta.) (free range management - FRM)	Ms. Jane Chisholm, Fort Smith, (403) 872-7934	2200 (Wood)
Mackenzie (NWT) FRM	Dr. Cormack Gates (403) 872-4245	1300-1500 (Wood)
Slave River Lowlands: (NWT)Hook Lake FRM	"	250 (Wood)
Slave River Lowlands:(NWT) Little Buffalo FRM	"	250 (Wood)
Nahanni (NWT) FRM	"	100 (Wood)
Yukon Herd FRM	"	250 (Wood)
Liard River (B.C.) FRM	"	50
Pink Mountain FRM	"	1500-1800 (Wood)
Hay/Zama (NWT/Alta) FRM	" Dr. Manfred Hoefs White Horse Renewable Resources	100
Elk Island (Alta.) FRM	Mr. Norm Cool (403) 992-2950 Mr. Wes Olson (403) 992-2962	(Plains) 600 (Wood) 400
Prince Albert Park, (Sask.) FRM	Mr. Dan Frandsen (306) 663-4541	150 (Plains)
Riding Mountain National Park (Man.) FRM	Mr. Richard Standom (204) 945-6784	(Plains)
Chitek Lake (Man.) FRM	"	(Wood)
Primrose Lake (Man.)	Mr. Ed Kowal (204) 953-2695 Mr. Marv Haladie (204) 787-9034	
Totals Received to July 11/97		**Approx. 7150**

4.2.5 Bison Population Comparisons from 1993 to Current Herd Size*

(*1997 calf crop not included)

Province:	1993 Total Herd: Govt. of Canada, Marketing & Industry Services Branch	1997 Total Herd	1997 Total Females (including cows & 1-2 year olds)
Manitoba	900	5,115	2,253 (44% of total)
Saskatchewan	2,800	7,750	6,177 (80% of total)
Alberta**	7,500	29,333 (unresearched speculated # from other data)	18,417 (63% of total - approximated from other statistics)
British Columbia**	4,000	5,179 (March, 1996) M. Scherer- none available for 1997	3,585 (66% of projected 1997 total 5,400)
Totals	15,200	47,376 (approximated)	30,432

** Alberta and B.C.'s data will be checked with the surveyors when they can be contacted.

4.2.6 Total Bison in the Four Western Provinces:

Herd Type:	Group:	Numbers:
Free range: (not sold or slaughtered commercially)	National and Provincial Parks	**7,150 (approx.)**
Contained:	B.C., Alta., Sask., Man.	**47,000 (approx.)**
PROJECTED TOTAL BISON POPULATION IN WESTERN CANADA		**54,150**

4.2.7 Herd Size Projection Based on Female Population:

Herd increase projections tabled below are based on the following premises. Any changes in any one of these factors will affect the size of the herd.

Premises:

- 100 productive cows- pregnant or calved
- Productive life of a cow - 10 calves
- Cull rate of 10% - including injury, sickness, non-breeders, etc.
- Weaning per cent based on cows pregnant in fall (after culling), compared to number of calves weaned in next fall or:
  85% (calving rate) for 90 cows = heifer calves at 42% of original 100 cows or 38

Table for Saskatchewan

Year:	Multiplier:	Cows in System:
1996	1.00	3,775
1999 (2 years)	1.58	5,964
2002 (5 years)	2.58	9,739

5.0 Summary

Although further information will need to be gathered to ensure accuracy of the above findings it can be assumed that:

5.1 The Bison industry in Canada is growing at a geometric progression.

5.2 The Saskatchewan Bison industry appears to have the largest per cent of breeding females per total population which indicates positive growth in the future.

5.3 Although the figures were not tabulated, industry associations indicate that their producer membership is growing rapidly.

5.4 Combined population counts in the four provinces indicate that the numbers will be high enough to facilitate large joint processing and marketing initiatives in the future.

5.5 The Bison population data gathered in this study can serve as a basis to determine and develop other areas of the industry such as:

- Future slaughter and processing plant site(s)
- Producer networking
- Domestic and international marketing policies and initiatives.

Appendix 7.2

Site Solicitation Mailout

A Western Canadian Bison Processing Plant Site Venture
Saskatchewan Bison Association

January 18, 1998

To All Interested Parties:

The Saskatchewan Bison Association is pleased to announce that their organization is currently undertaking a Business Prospectus Development Study to determine the feasibility of constructing a bison slaughter and processing plant in Saskatchewan which would accommodate producer needs from across Western Canada. Its funding partners in this initiative include: Business Planning for Agri-Ventures, Government of Canada and The Canada-Saskatchewan Agri-Food Innovation Agreement.

We are currently gathering the information required to compile a prospectus which will identify the key components necessary for a successful plant including: animal supply, physical and corporate plant structuring, potential markets, etc. as well as plant location.

The Saskatchewan Bison Association is aware, from research completed over the summer of 1997, that the numbers of Bison in Western Canada have grown significantly from a count done by Agriculture Canada four years ago. The total number of Bison contained in commercial herds in the three prairie provinces is approximately 42,000. While Alberta has the largest total herd numbers (approximately 29,000), Saskatchewan at 7,750 has the largest per cent of breeding females (80%) as opposed to Manitoba - 44% (5115 total herd) and Alberta - 63%. This is an indicator that the Bison industry in Saskatchewan has a strong future potential.

Many Saskatchewan citizens are considering going into Bison production because of the animal's natural adaptability to the local environment. As well there is an abundance of available forage lands.

In addition, consumer demands for leaner, different meats and strong off-shore market opportunities such as Europe have kept prices for live and processed Bison high.

Canada is in a very competitive position for selling Bison meat to foreign markets. A low Canadian dollar, an Agriculture Canada Bison meat grading system, strong trading partnerships, lower cost feed and a positive production environment are all factors that add strength to our market position.

In order to capitalize fully on this opportunity, Saskatchewan, as well as neighbouring provincial producers need a large value-added facility to process their animals. There are currently two small Bison processors in Western Canada that have European Union certification, which allows them to sell into Europe, as well there are other federally inspected slaughter plants which process small numbers. There is also a

large Bison processing plant in North Dakota which processes Canadian animals. However it has become clear that in order to satisfy current market demands fully and meet future needs, a large processing plant needs to be built in Western Canada. Hence the current undertaking of the Saskatchewan Bison Association.

Plant Site

One of the most important criteria for successful plant establishment is the location. The strategic location of a plant can make differences in profitability.

One of the main focuses of the business prospectus study is to find the ideal location in Saskatchewan to construct this proposed processing facility. We are looking for players with strong interest in and enthusiasm for the industry who would like to submit proposals for having the slaughter plant located in their communities.

Below is a list of basic criteria for plant placement:

* A rural location that is a minimum of fifteen acres in size that allows for sewage treatment via lagoon or existing sewage treatment system of processing liquids.

* A water supply of 9 - 10 million litres annually.

* A base power supply of 830,000 kilowatt hours annually.

* Favourable tax abatement policies.

* Transportation arteries that can handle heavy loads and which have access to ground and air shipping facilities.

* Initially, community capacity and amenities to directly support up to thirty plant workers and their families and later more workers as support services are added in the plant operation.

* Access to training facilities for meat processing workers

* Proximity to Bison production areas would be an asset (see map)

* An economic development and/or other infrastructure to work with plant personnel to facilitate plant development and operation

If your community meets these criteria and has an interest in having a Bison slaughter and processing plant please request a proposal package from us either by telephone, fax, in writing or in person. We would be pleased to supply you with the information and meet with you. Our deadline for proposal package requests is February 10, 1998. The contact people are:

Mr. Al Christensen
BMG Business Management Group
217 - 3501 8th Street East
Saskatoon, Sask. S7H OW5
Telephone: (306) 665-6900
Fax: (306) 665-6905

Ms. Sheila Gamble
Trace Consulting Inc.
5070 Wascana Vista
Regina, Sask. S4V 2S2
Telephone: (306) 789-5379
Fax: (306) 789-6875

This is an exciting opportunity for Saskatchewan! The capitalization costs of a plant of this magnitude are in the three to four million dollar range. The economic benefits in terms of direct and support services are large. We would like to hear from your community!

Yours truly,

Al Christensen
Sheila Gamble

On behalf of our client:

The Saskatchewan Bison Association

Appendix 7.3

North Battleford Proposal

SASKATCHEWAN

WESTERN CANADIAN BISON PROCESSING PLANT

NORTH BATTLEFORD SITE PROPOSAL

Presented by:
City of North Battleford

WESTERN CANADIAN
BISON PROCESSING PLANT
NORTH BATTLEFORD SITE PROPOSAL

This proposal, by the North Battleford Task Force on Bison Processing, is presented for your positive consideration.

Members to the Task Force represent a range of community and regional interests which include northwest region bison producers, Battlefords Tribal Council, agriculture specialists, the legal profession, local business, municipal government, and the North Battleford Economic Development Board.

The Task Force is confident in its ability to create a world-class processing facility that will benefit Western Canadian bison producers and generate value-added processing for Saskatchewan.

The Task Force believes this report will clearly demonstrate "the North Battleford advantage" with respect to geographic location, transportation, bison population, plant infrastructure, quality of life and community investment.

The North Battleford Task Force on Bison Processing recognizes the importance of partnerships and looks forward to working in co-operation with the Saskatchewan bison Association and all levels of government.

Yours truly,

Chairman

Mayor

March 11, 1998

REGIONAL SUPPORT

In recognition of the need for financial commitment to the Bison Processing Plant, Task Force members conducted a random sampling of northwest bison producers.

The results of the survey were nothing short of remarkable. One hundred percent of those surveyed considered their financial support as a necessary investment in the development of the processing plant and the industry.

The attachments contain letters of support and a preliminary list of producers who would definitely make a financial commitment to the North Battleford Bison Processing Plant.

The following represents a random sampling of producers in Northwest Saskatchewan who have indicated that they would definitely make a financial commitment to a plant in the North Battleford area:

Bentley Brown, Mervin
Don Jansen, Glenbush
Rob Bruynooghe, North Battleford
Doug Prescesky, Maymont
John Warrington, Mervin
Kevin Wilkinson, Livelong
Fred Westblom, Meadow Lake
Milton Conacher, Mervin
Ed Clark, Mayfair
John Woloshyn, Baldwinton
Dale Miller, Cut Knife
Spruceview Farms Ltd, Cut Knife
Canola Farms Ltd., Mayfair
Darwin Bear, Christopher Lake
Roger Provencher, Canwood
Wilfred Sten, Stump Lake
Ken Sten, Battleford
Ray Ference, Kitscoty, Alberta
Jim Shephard, Livelong
Dan Esquirol, Edam
Alain Fortier, Vawn
David Belyk, Lloydminster
Keith Green, Rosetown
Andy Kolenosky, Wilkie
Wally Steinley, Yuma, Arizona
Dan Tuchscherer, Tramping Lake

Dale Conacher, Mervin
Doug Lamb, Rabbit Lake
Don Miller, Rabbit Lake
Charlie Range, Glaslyn
Byron Toth, Leask
Leo Sequin, St. Walburg
Keith Conacher, Mervin
Orest Ewanchuk, Whitkow
Dennis Woloshyn, Mayfair
Leonard Katerynych, North Battleford
Glen Miller, Cut Knife
Willow Ridge Bison Ranch Ltd., Wilkie
Glen Herzog, Shellbrook
Curtis Nelson, Birch Hills
Raymond Wyatt, Canwood
Erland Sten, Meadow Lake
Alfred Svendsen, Stump Lake
Stan Schneider, Scott
David Mykytuk, Glaslyn
Hubert Esquirol, Meota
Craig Hamilton, Radisson
Glen Cuthill, Unity
Tom Jenson, Smeaton
Julian Goyan, Mayfair
Terry Latourness, Tramping Lake
Peter Volk, Scott

BATTLEFORDS TRIBAL COUNCIL

1022 - 102nd Street, NORTH BATTLEFORD, SK, S9A 1E6
Phone: (306)445-1383 Fax: (306)446-0612

Little Pine

Lucky Man

Moosomin

Mosquito

Poundmaker

Red Pheasant

Sweetgrass

Mr. W. Standbrook, Director
Economic Development
City of North Battleford

Re: Buffalo Feedlot/Processing

Dear Mr. Standbrook:

Further to our discussions on this matter, this is to confirm that the Chiefs of the Battlefords Tribal Council are very interested in pursuing investment opportunities in this emerging industry.

As you are aware, our First Nations have substantial investment capital from our gaming operations and the .5 billion dollar Treaty Land Entitlement settlement signed in 1993 with the Federal Government.

We are prepared to take an active roll in this venture. I look forward to meeting with you on this matter in the near future.

Sincerely,

J. R. Wallace,
Chief Executive Officer

Head Office:
Sweetgrass Indian Reserve #113, P.O. Box 166, GALLIVAN, SK, SOM 0X0
Phone: (306)937-3505

BATTLEFORDS TRIBAL COUNCIL

1022 – 102nd Sreet, NORTH BATTLEFORD, SK S9A 1E6
Phone: (306) 445-1383 Fax: (306) 446-0612

Little Pine

Lucky Man

Moosomin

Mosquito

Poundmaker

Red Pheasant

Sweetgrass

March 6, 1998

City of North Battleford
1291 – 101st Street
North Battleford, SK
S9A 0Z7

Attention: Wayne Standbrook
Director, Economic Development

Re: Bison Slaughter and Processing Plant

Dear Mr. Standbrook;

In recent years, First Nations of the Battlefords Tribal Council and their members have demonstrated a strong interest in establishing viable bison operations on various reserve lands in the Battlefords district.

We are currently working with two projects which will establish new herds in 1998.

We believe the establishment of a bison slaughter and processing operation in the Battlefords will be a significant stimulus for the establishment of new operations and the expansion of existing First Nation Bison operations in northern Saskatchewan.

Therefore, we wish to express our strong support for this initiative as well as a definite interest in exploring the potential opportunity to participate in this investment.

Yours truly,

R.E. Brown
Operations Manager

/adsm

Head Office:
Sweetgrass Indian Reserve #113, P.O. Box 166, GALLIVAN, SK S0M 0X0
Phone: (306) 937-3505

HIGHRIDGE BISON RANGE LTD.

Box 657, Battleford, SK. S0M 0E0

Phone: (306) 937-7115 • E-mail: ray.blais@sk.sympatico.ca

March 10, 1998

City of North Battleford
P. O. Box 460
NORTH BATTLEFORD, Saskatchewan
S9A 2Y6

Attention: Wayne Standbrook

Dear Sir:

Re: Bison Processing/Slaughtering Facility in North Battleford

Our family corporation is excited about the prospect of this facility coming to this community and is prepared to wholeheartedly lend its support to it. We would be prepared to commit our entire production of bull calves excluding those selected for breeding purposes and we would also be prepared to participate financially as investors in this plant.

Our ranch is located ten miles from downtown North Battleford and currently consists of 75 females. We currently have plans under way that will see the doubling of the cow herd within the next three years. Highridge Bison Range is operated by my wife, myself and our two sons who themselves are in the process of making arrangements to establish their own herds in this area as well.

If I can be of any further assistance, please call.

Yours truly,

HIGHRIDGE BISON RANGE LTD.
Per:

Ray J. Blais

/rk

Willow Hollow
Game Ranch

Box 95, Mervin, Sask. 4412 ★ ELK ★ DALL & BIGHORN SHEEP ★ WOOD BISON
Box 475, Meadow Lake, Sask. S0M 2V0 Fax. (306) 845-2960
Bentley Brown – (306) 845-2444 Keith Conacher – (306) 845-2704
Dale Conacher – (306) 845-2645 Milton Conacher – (306) 845-2104

Box 95
Mervin, Saskatchewan
S0M 1Y0

March 7, 1998

Mr. Wayne Stanbrook,
Economic Development Director
North Battleford Region
1291 - 101st Street
North Battleford, Saskatchewan
S9A 0Z7

Dear Wayne:

The bison industry in Western Canada has developed rather slowly, partially due to lack of breeding stock, but mostly because of infrastructure to handle the finished product. Pioneers in the industry had to do on farm slaughter and sell their surplus product from home freezers. The industry has now grown to attract commercial slaughter plants in some regions.

Elk production in Western Canada seemed to develop much more quickly than the bison industry (10 - 15 years since its beginning). This was because the velvet antler market (from bulls) pretty well eliminated a need for slaughter facilities.

Recent events have forced Western Canadian farmers to consider a return to diversfied and a value added approach to farming. The loss of transportation subsidies for grain to port has encouraged many to diversify into livestock. Non traditional livestock production (bison and elk) is the fastest growing segment in the agriculture industry.

We believe the bison industry will grow very quickly especially in the parkland belt of Saskatchewan. Stocking density on pasture is much higher than on southern native range and therefore reduces fencing costs. The parkland region of Saskatchewan was traditionally the mixed farming area of the province. In recent years there has been a trend towards straight grain farming with the concepts of continuous cropping, minimal tillage, chemicals and direct seeding. Increased production and equipment costs, low grain prices and loss of subsidies has encouraged farmers to return to animal production. Prices of bison breeding stock would indicate the demand far exceeds the supply.

We have been told bison imports into Saskatchewan from the United States over the past year have exceeded imports into most other regions. Imports over the last several years have probably exceeded natural increase. This is a clear indication Saskatchewan will have a very large bison industry.

We believe a slaughter facility in northwest Saskatchewan would serve Saskatchewan and eastern Alberta. There are slaughter facilities in Alberta that serve the most westerly region reasonably well. These plants are presently able to handle production from a fairly large region and are no doubt considering future plant expansion. A plant situated in northwest Saskatchewan would be ideally located to serve Saskatchewan and eastern Alberta.

Producers in this area of north west Saskatchewan are extremely interested in a slaughter plant for the region.

Willow Hollow Game Ranch boasts the largest private herd of wood bison in North America; we started this herd in 1991. We are presently expanding our herd of American plains bison (started in 1991). We presently ranch in excess of 300 bison.

This is the trend we see developing in our area and it is also indicative of the whole parkland area.

For Willow Hollow Game Ranch Ltd.

Dale C. Conacher

Dale C. Conacher, B.S.A.

Neil Kramer Auction Sales Ltd.

Box 1807
North Battleford
Saskatchewan, S9A 3W8
Canada

Phone 1-306-445-2377
Fax 1-306-445-5003
www.krameraution.ca

March. 6.1998

Attn. : Bison Slaughter Plant Task Force

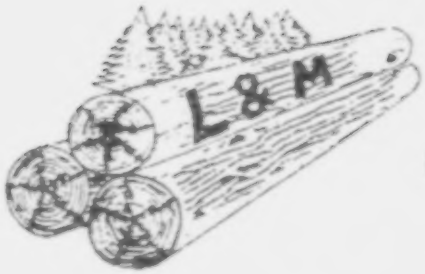
I was informed Thursday March.5.1998 about the possibility of a bison slaughter plant being opened in the Battlefords area. Hearing this I felt I should write a brief letter showing our interest in the buffalo market and background in the auction business.

Neil Kramer Auction Sales Ltd. has been conducting auctions since 1949. These auctions include farm machinery dispersal's, various types of livestock, cars, trucks, R.V.'s, house, antiques and collectables, etc. We have recently built a new $325,000.00 auction facility located 3 miles east of North Battleford right on Hwy#16. In addition to this we are spending approximately $40,000.00 on a corral system with full intentions of holding bison and elk auctions by this fall. These sales should consist of regular feeder sales and eventually select sales. Seeing as though northwestern Saskatchewan has the largest bison population in the province and that the Battlefords is central to other surrounding producers we feel this area will not only be excellent for us with bison auctions but also for a new bison slaughter plant.

Hopefully the information in this letter will be one more reason in helping to prove that the Battlefords is the best location for a new bison slaughter plant.

Yours Truly,

Neil Kramer
Neil Kramer Auction Sales Ltd.



L & M Wood Products (1985) Ltd.
P.O. Box 280
Glaslyn, Sask. S0M 0Y0
Area Code (306) 342-2080
Fax (306) 342-4707

Timber Specialties
CSO Pressure Treated Wood

BE QUALITY CONSCIOUS • BUY "G" BRAND QUALITY PRODUCTS

March 9, 1998

TO: North Battleford Bison Slaughter Facility Task Force

L & M Wood Products (1985) Ltd., is certain that a Bison Slaughter Facility in the Battlefords would greatly benefit all the businesses.

Our business would definitely gain support in that we sell many of our products to ranchers and farmers (posts, poles, rails and timbers) and many other items for farming and ranching.

It is an added bonus that this new facility would have many Saskatchewan shareholders and would therefore keep the money in our Province.

We fully endorse this Bison Slaughter Facility.

Yours very truly,

J.K. (Ken) Davies, Manager/Owner
L & M Wood Products (1985) Ltd.

Postit Fax Note #7671 | Date 3/9/98 | # of pages 1
To DAVE GLASHYN
Fax#
From K DAVIES
Phone# 342-2080

March 9th, 1998

ATTENTION: Wayne Standbrook
Economic Development Officer
North Battleford, Sk.

The Carlton Trail Cattle Co-operative is working towards construction of a large feedlot in the Turtleford area.

They would be interested in studying the economic feasibility of this, including an area to feed buffalo within this feedlot.

The construction of a buffalo processing plant in North Battleford would aid in such a project. We support this project because it would give the Carlton Trail Cattle Co-operative a wider scope for its feedlot.

David Wooff
Terry Maess
Durold Textor

FROM : D.Textor,Turtleford PHONE NO. : 3068452310 Mar. 09 1998 04:44PM P1

SASKATCHEWAN

WESTERN CANADIAN BISON PROCESSING PLANT

NORTH BATTLEFORD SITE PROPOSAL

Presented by:
City of North Battleford

CITY OF NORTH BATTLEFORD, SASKATCHEWAN

SITE SELECTION PROPOSAL, MARCH 1998

LAND FOR PHYSICAL STRUCTURE

The land identified for the physical structure can be classed as semi-rural as it is located in the most easterly portion of the City's heavy industrial park. The location is approximately four to five miles from the nearest residential area and is situated immediately south of the City stock yards and farm service centre area (see attachments).

SOIL CLASSIFICATION

The attachments provide a detailed description of soil classification, geo-technical analysis and test hole log. The site provides excellent surface drainage.

AVAILABLE LAND

Available acreage is well in excess of the 15-acre minimum requirements. The attachment indicates a 15-acre site.

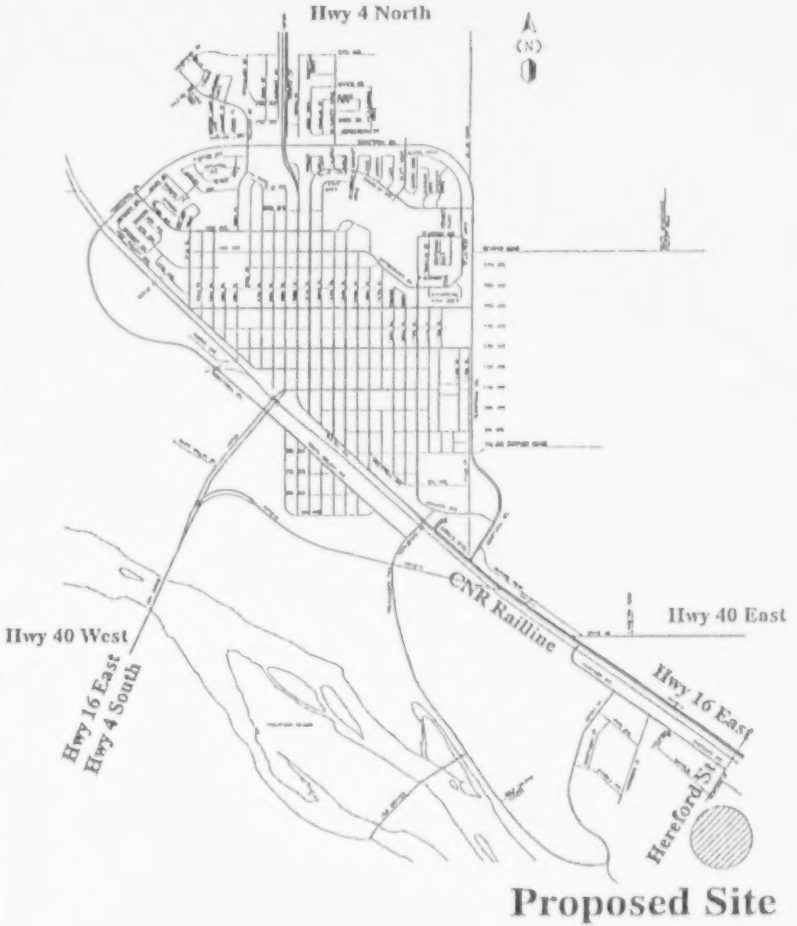
COST OF LAND

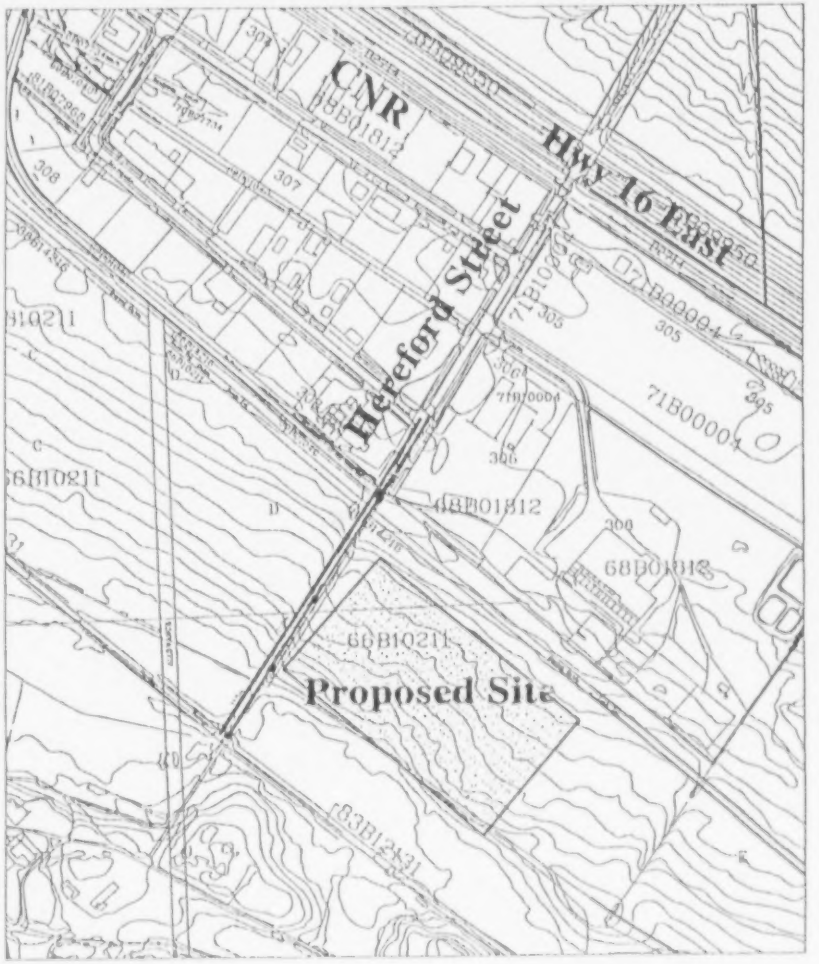
Fully-serviced land in Parsons Industrial Park, North Battleford, is listed at $25,000.00 per serviced acre.

Special consideration is given to major development proposals such as the bison processing plant. Through a development agreement with the community, the cost of land is best classed as a non-factor.

Further, the City will be required to extend services eastward to the proposed site. The estimated cost to the City for service extension is in excess of $200,000.00. The City is prepared to extend these services at no cost to the bison processing project.

North
Battleford





Parsons Industrial Park
Proposed Site
BISON SLAUGHTER and PROCESS FACILITY

Drawn: 02/20/98 djm

SOIL CLASSIFICATION

Soil Zone/Order	Order/Great Group/ Subgroup	Sandy Fluvial Lacustrine (<15% clay)	Texture
Black	Chernozemic Soil Order Orthic Subgroup	Meota (ME)	Sandy Loam/Loamy Sand Combination

PROFILE

Chernozemic Soil Order:

The highest profile rates are assigned to chernozemic soils with moderate to good drainage. Lower profile rates are assigned to chernozemic soils that have profiles with high lime (calcareous), massive structure and/or gleyed, have slight to moderate eluviation, and have a shallow profile depth.

4.0 GEOTECHNICAL ANALYSIS

4.1 Surficial Geology

The site falls within a fluted till plain consisting of linear ridges. Surficial materials are generally till on the ridges and sand in the depressions.

Bedrock silts, clays and sands underlie the surficial drift materials. The surface of the bedrock and the corresponding thickness of the glacial drift fluctuates very rapidly.

4.2 Stratigraphy

In general the site is overlain by sandy materials. These are underlain by till and bedrock consisting of overconsolidated clays, silts and sands.

The stratigraphy is illustrated on the test hole logs and stratigraphic cross sections appended.

4.3 Groundwater

Generalized groundwater conditions are illustrated on Drawing No. S72.3. The overall gradient of the Groundwater flow is southward toward the river. The piezometric surface is a subdued expression of the ground surface.

4.4 Discussion

The major geotechnical considerations related to the proposed site development are:

1) extreme lateral and vertical variations in stratigraphy and subsurface soil strata.

2) a relatively high water table which results in sloughing of the non-cohesive sands and silts into open excavations.

TEST HOLE LOG

DATE 81/03/27 HOLE NO 112

GROUND ELEV. 506.84 m

LOCATION

DEPTH	NO. TYPE	UNIF. P.I.	SHEAR STRENGTH - kPa ■ UNCONF ☐ POCKET PEN ▽ LAB VANE 50 100 150 200	▲ DRY DENSITY - gms/cm³ 1.3 1.5 1.7 1.9 2.1	PLASTIC LIMIT WATER CONTENT LIQUID LIMIT 10 30 50 70 90 %	SYMBOL	DESCRIPTION OF MATERIALS
							TOPSOIL
1 m	T748 Bag						0.8 m
	T749 Bag						SAND - silty - fine to medium grained with gravelly layers and cobble layers - calcareous - light brownish grey (2.5 Y 6/2) oxidized - Fe stains - organic streaks
2 m							
	T750 Bag						
3 m	T751 Bag						
	T752 Bag						3.7 m
4 m							TILL - clayey - calcareous - dark greyish brown (2.5 Y 4/2), oxidized becoming very dark grey (2.5 Y 3/0), unoxidized at 4.9 m - damp - Fe stains to 4.9 m
	T753 Bag						
5 m							5.5 m - selenite crystals
	T754 Bag						SAND - silty, dirty
6 m	T755 Bag						6.1 m - coarse grained with gravelly and silty layers - greyish brown (2.5 Y 5/2), oxidized - saturated

NOTES:

1. Hole terminated at 6.1 m.
2. Drilled with Mobile B-60 Continuous Flight using 150 mm diameter solid stem auger.
3. Water measured at 4.3 m below ground surface upon completion.

CLIFTON ASSOCIATES LTD
CONSULTING GEOTECHNICAL ENGINEERS
REGINA
SASKATOON

PROJECT Proposed Industrial Subdivision

LOCATION NORTH BATTLEFORD, Saskatchewan

PROJECT NO. S72 PLATE NO.

WATER AVAILABILITY

Based on information received, the bison processing plant will require 10 million litres of water per year. This represents 6,000 gallons of water per day.

The City's current production capacity is three million gallons of potable water per day. Only under extreme summer conditions does demand reach two million gallons per day.

Therefore, the City is capable of supplying the needs of the processing plant even during the most extreme demand periods.

WATER ANALYSIS

The attachment on the next page provides a complete water analysis. The environmental analysis report was produced by Sask Health on December 29, 1997.

WATER COST

Based on consumption per three month billing period:

First	100	cubic meters:	$.75/c.m.
Next	400	cubic meters:	.64/c.m.
Next	2000	cubic meters:	.53/c.m.
Over	2500	cubic meters:	.42/c.m.

Estimated water cost per quarterly billing period:

6,000 gallons/day = 27 cubic meters

Based on 25-day operation/month = 675 cubic meters/month

Estimate of quarterly water consumption: 3 x 675 = 2,205 cubic meters

quarterly water billing = $1,139.00

Saskatchewan Health

Laboratory and Disease Control Services Branch
(306) 787-3336/(306) 787-3140

Environmental Analysis Report

Invoice No. 00165068

Collected / Submitted by
CITY OF NORTH BATTLEFORD

Location
CITY OF NORTH BATTLEFORD/POTABLE WATER SYSTEM/109th ST & 9th AVE

Return Address

CITY OF NORTH BATTLEFORD
P.O. BOX 460

NORTH BATTLEFORD, SASKATCHEWAN
S9A 2Y6

HEALTH DISTRICT: 13

Date Collected
16 Dec 1997
10:30

Date Received
17 Dec 1997
09:23

Date Reported
29 Dec 1997

971217 WA 5642

Test	Results	Units	Fee
CONDUCTIVITY	489	uS/cm	
NITRATE	2	mg/L	
SULPHATE	56	mg/L	
pH	8.0	pH UNITS	
TOTAL ALKALINITY	190	mg/L CaCO3	
BICARBONATE	232	mg/L	
SODIUM (ICP)	19	mg/L	
MAGNESIUM (ICP)	19	mg/L	
CALCIUM (ICP)	61	mg/L	
TOTAL HARDNESS (CALCULATED)	231	mg/L CaCO3	
CHLORIDE	7	mg/L	
FLUORIDE	0.1	mg/L	
TURBIDITY	0.59	N.T.U.	
TOTAL DISSOLVED SOLIDS (CALC)	396	mg/L	

CITY OF NORTH BATTLEFORD
RECEIVED
DEC 31 1997
PUBLIC WORKS AND UTILITIES

Total Fees
Adjustments
TOTAL CHARGES
G.S.T. (reg# 107864258)

NO CHARGE

Please include Invoice No. with payment and remit to:

Minister of Finance,
Saskatchewan Health
3475 Albert Street,
Regina, Saskatchewan
S4S 6X6

00165068

Health 13-76 APR 94

MAJOR POWER SUPPLIES

Power requirements available throughout Parsons Industrial Park. Service provided by Sask Power and Sask Energy.

SEWAGE TREATMENT AVAILABILITY AND TYPE

The existing sewage treatment facility serving Parsons Industrial Park (proposed site of bison processing plant) is a three-cell aerated lagoon.

Based on certain assumptions (i.e. some level of pre-treatment), the existing lagoon can easily accommodate the hydraulic loading generated by the processing plant. As well, the excess organic loading capacity of the lagoon is sufficient to handle a slaughter rate of up to 20 head per day or about 7,000 head per year. The sewage system has been designed to facilitate expansion through the addition of new cells.

COST OF SEWAGE TREATMENT

Sewage costs are billed on a quarterly basis with the water billing. Sewage costs represent 60% of water billing.

Example:	quarterly water billing estimated	$ 1,139.00
	quarterly sewage charge @ 60%	$ 683.55

HAULERS OF PLANT OFFAL

- CanGro Feed Processors is an $8 million feed processing plant currently under construction in Parsons Industrial Park. Plant construction will be completed by December 1998.

  CanGro, a subsidiary of Sask Wheat Pool, will produce feed for hogs, cattle, bison and domestic pets. Products such as tallow, bloodmeal, and bonemeal are necessary ingredients in feed production.

  CanGro has expressed interest in acquiring large quantities of product from the proposed bison processing plant in North Battleford.

- Saskatoon Processors provides regular service to North Battleford and area.

SUPPLIERS OF PACKAGING MATERIALS

PLASTIC WRAP:

CTK Plastics Ltd.
1815 Stadacona Street West
Box 1768
MOOSE JAW, Saskatchewan
S6H 7K8

Contact: Gabriel Baisonette
Phone: 306-693-7075
Fax: 306-693-9944

EME Plastics
2342 Hanselman Avenue
SASKATOON, Saskatchewan
S7L 5Z3

Contact: Wayne Paul
Phone: 306-242-9624
Fax: 306-384-5211

Meldon Plastics Ltd.
1049 Winnipeg Street
REGINA, Saskatchewan
S4R 1J3

Contact: Donald Little
Phone: 306-352-4355
Fax: 306-352-4054

Jim Scharf Holdings Ltd.
Box 305
PERDUE, Saskatchewan
S0K 3C0

Contact: Jim Scharf
Phone: 306-667-9727
Fax: 306-237-4362

CARDBOARD BOX SUPPLIERS:

Consolidated Packaging
339 Edson Street
Saskatoon, Saskatchewan
S7J 4C8

Phone: 306-652-6658
Fax: 306-562-2880

MacMillan Bathurst Inc.
602 43rd Street East
SASKATOON, Saskatchewan
S7K 0V8

Contact: Shane Toth
Phone: 306-242-4506
Fax: 306-934-1056

General Fasteners (Sask.) Ltd.
3211 Millar Avenue
SASKATOON, Saskatchewan
S7K 5Y3

Contact: Joy Scott
Phone: 306-242-4466
Fax: 306-242-5753

TRANSPORTATION ARTERIES

North Battleford is strategically located on the Trans Canada Yellowhead Highway, approximately 65 miles/100 km due east of the Alberta border. Close proximity to Alberta is a definite advantage as it offers direct and easy access to primary producers in that province.

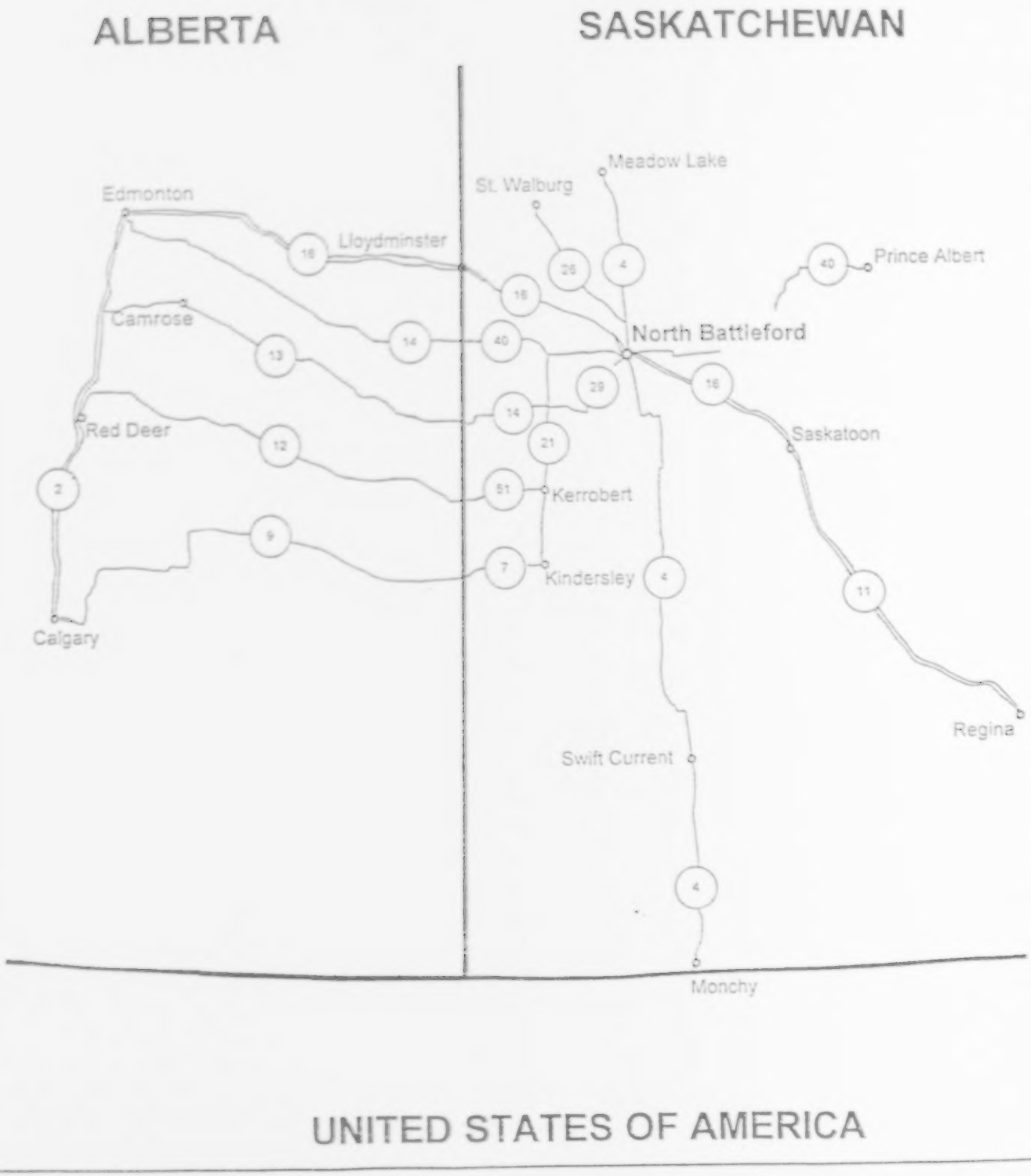
North Battleford is located on a CN Rail mainline and at the hub of five highways. Transports can now travel on twinned highways from Regina through Saskatoon and on to North Battleford. Twinning of the last 70 miles to Lloydminster is expected to begin within three years. Completion of this portion of the Yellowhead will provide the best possible route for shipments from Alberta producers.

- Highways #40 and #29 provide key linkages to other Alberta routes connecting with Calgary, Red Deer and Edmonton
- Highway #4 extends from Meadow Lake in the north through Swift Current and Monchy at the USA border
- Highway #40 extends eastward through Prince Albert
- Highway #26 reaches beyond St. Walburg to the north

DISTANCE FROM NORTH BATTLEFORD

To:	Edmonton	240 miles/386 km
To:	Calgary	400 miles/643 km
To:	Saskatoon	85 miles/133 km
To:	Regina	240 miles/386 km

TRANSPORTATION ROUTES



UNITED STATES OF AMERICA

AIR CARRIERS

The North Battleford airport has a 5,000 foot paved runway suitable for Hercules and 737 jet cargo carriers. Fuel facilities are in place.

The Saskatoon airport is just over an hour's drive from North Battleford on the twinned Yellowhead Highway. The Saskatoon airport is capable of handling most modern jet cargo carriers.

The Edmonton International airport is located approximately four hours from North Battleford. Again, North Battleford's location near the Alberta border and on the Yellowhead Highway offers the shortest, fastest route to an international airport.

TAX ABATEMENT CONCESSIONS

North Battleford's industrial incentive program has traditionally been tied to job creation. However, this highly successful job creation incentive may not produce the level of assistance required during the critical start up period.

The City of North Battleford recognizes the importance of the project to the region and is therefore prepared to offer a local precedent-setting incentive in the form of tax relief. This tax relief incentive is in keeping with Provincial Government legislated policy.

Further to the above, the City of North Battleford is prepared to absorb costs associated with expanded infrastructure development to the property. As well, the City offers to enter into a development agreement to address land costs.

MUNICIPAL INFRASTRUCTURE

The City of North Battleford is always pleased when we are successful in attracting a new industry. However, we also recognize that the start up of a new industry is the beginning of a major responsibility for the City.

North Battleford has an excellent record of retention and expansion of industry. We have achieved this level of success through regular communication, joint City-industry training seminars, regular media promotion of our companies, liaison with local and senior government agencies and finally, by demonstrating a strong commitment to see local industry succeed.

The City of North Battleford welcomes the opportunity to serve you to the best of our ability. To best accommodate your needs, we recommend direct communication with Mr. Wayne Standbrook, Director or Economic Development.

Phone: 445-1718
Fax 445-0411
CityWeb: WWW.CITY.NORTH-BATTLEFORD.SK.CA

COMMUNITY STRUCTURE

Whether it be a company, a family, or an individual, newcomers to North Battleford soon recognize that "community" means co-operative, friendly people -- not buildings. Newcomers are quickly swept into the mainstream of community activity. Over 150 clubs and organizations are registered in the city. This includes all major service clubs, business sororities, charitable organizations, and ethnic societies. Music, dance, art, and drama clubs play an active role in a vibrant cultural community.

North Battleford is situated in one of the most beautiful regions of the Prairies. The magnificent North Saskatchewan River Valley, the lakes, forests, and rolling hills, have caused visitors to describe the community setting as "An Oasis on the Prairies."

Many of this province's premiere recreation sites are located just minutes from downtown North Battleford. These outstanding recreation areas contribute greatly to the energy, lifestyle, and values of our residents. The also serve as an attraction to those who may be considering relocation to North Battleford.

BASIC SERVICES & AMENITIES

North Battleford offers a full range of services normally associated with much larger cities.

- Law Enforcement: An amalgamated detachment under the command of an inspector has a combined total of 66 personnel.
- Fire Protection: Sixteen full-time and sixteen part-time fire fighters. All personnel have undergone extensive training and the department is equipped with the latest in fire and rescue technology.
- Electricity, Gas and Telephone supplied by Provincial Crown Corporations.
- Public Transportation: ABC Bus Lines operates every day of the week. The Battlefords Handicapped Bus System operates on a five-day-a-week demand basis. One taxi company operates 15 vehicles.
- Road Transportation: Four companies provide daily courier service. Passenger and bus express is provided five times daily. Seven companies provide trucking service to Saskatoon and Edmonton and four local companies specialize in hauling heavy equipment.
- Railways: serviced by CN Rail.
- Financial Services: Five chartered banks and two branches of the Battlefords Credit Union.

- Insurance Companies: Eleven companies located in North Battleford.
- Health: Battlefords Union Hospital -- a 200-bed fully modern hospital includes a four-bed intensive care unit and day-patient clinic.
- Medical Clinics: Four clinics served by twenty general practitioners and four practicing specialists. As well, the community is served by eight dentists.
- Additional Services: Mental health facilities, nursing homes and senior citizens homes.
- Churches: Twenty-four churches representing most religious denominations.
- Media: News Optimist/Telegraph newspaper
  CJNB Radio – North Battleford
  Battlefords Cablevision supplies 37 cable channels
- Business Organizations: Battlefords Chamber of Commerce
  Battlefords Tribal Council
  Northwest Business Development Corporation
  North Battleford Economic Development Board
- Sports & Recreation Facilities:

Indoor Rinks	4
Golf Courses	4
Curling Rinks	2
Community Parks	9

- Education Facilities: Public and Separate School Divisions

Elementary	10
High Schools	2

North West Regional College offers first and second year university classes, technical institute programs, business training, and career and student services.

LIVING ACCOMMODATION

It is reasonable to assume that a majority of plant workers will already reside in the Battlefords. However, newcomers will quickly realize that North Battleford's housing market is undervalued, relative to communities that recently experienced the "boom" cycle of the petroleum industry.

At March 1, 1998, the Battlefords Real Estate Board had listings for approximately 100 homes. The listings ranged in price from $40,000 to $140,000.

The City has 133 serviced residential lots in Killdeer Park and Fairview Heights subdivisions. The City will soon introduce an aggressive marketing campaign to stimulate new residential construction.

There are 76 apartment buildings in North Battleford containing 1,228 suites. Vacancy rates fluctuate on a regular basis.

TRAINING FACILITIES

Residents of the Battlefords and northwest region can fill most personnel job descriptions in a bison slaughter/processing facility.

In conjunction with the North West Regional College and with input from SIAST (Kelsey Campus, Retail Meat Cutting Division) and Saskatchewan Agriculture and Food's Industry Development Branch, we will appoint a task committee to research and oversee establishment of all needed training. We will apprise ourselves of any components of training that need to be modified to meet European Union Standards. Maple Leaf Meats and Battle River Meats (see "Related Industries") may become the on-site training venues. We further believe that plant construction, when it comes, will be a final guide to the more precise training requirements.

RELATED INDUSTRIES

Maple Leaf Meats is a 24,000 sq.ft. state-of-the-art bacon processing plant. The plant employs 150-200 people and produces 750,000 pounds of bacon per week. Up to 90% of production is exported to the United States and Japan.

Battle River Meats – a 5,000 sq.ft. slaughter and custom processing facility. Employs two people.

PROXIMITY TO CURRENT BISON PRODUCTION AREAS

North Western Saskatchewan's soils and land forms are highly variable. Rivers, lakes and other water bodies intersperse the area. There are zones of soils and climate well suited for cash crops and additionally there are areas well suited to a mixed livestock-cash crop economy. The mixed economy is necessitated by climate (due to short growing season) and transportation cost considerations.

The northwest corner has historically been an area that has favored the beef "cow-calf" enterprise and the livestock husbandry skills are readily transferable to bison. The 1996 Census numbers for a selection of municipalities around the northwest show over 220,000 head of beef female breeding stock. Almost all bison producers have come to their enterprise from a beef enterprise. (See attachment.)

A trend in land use is the number of acres that are being returned to perennial forage in North Western Saskatchewan. A short growing season, high input costs for cash crops, and crop rotation considerations are reasons for this trend. This forage, marketed through bison, will produce a higher value product, consequently attracting less freight cost per unit measure.

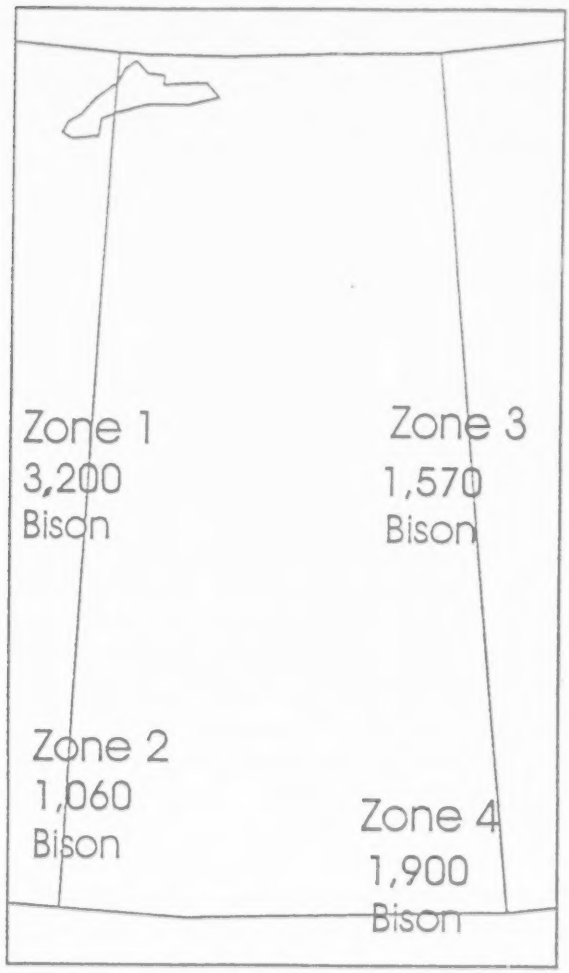
Seventeen of the twenty-eight First Nations that are receiving Treaty Land Entitlement reside in North Western Saskatchewan. Their purchasing pattern has been to acquire a mix of annual crop-producing land and pasture land. Their historic values favor raising livestock over producing annual crops. Their existing Reserves all have community pastures. There is a "back-to-grass" tendency on existing Reserve farmland as well. At least ten Band-owned and individual proprietorship bison enterprises lie within 160 km of the Battlefords.

Acres of forages and bison numbers are on the increase in the northwest because of the characteristics of the region. A plant to process bison will further stimulate herd growth. While this is to be expected no matter where a plant is located, the fact remains that the northwest already has the highest provincial bison population and is close to the densest population of bison in Alberta.

1991/96 Census of Agriculture - Cattle + Calves

R.M.#	# PRODUCERS		COWS		REPLACEMENT HEIFERS	
	1991	1996	1991	1996	1991	1996
406	84	86	2650	3438	800	759
498	111	108	3630	4026	800	752
409	59	64	1570	2079	400	408
410	74	74	3650	0	600	972
411	63	67	4270	0	1340	948
434	58	54	2270	2822	600	634
435	96	109	2900	3794	740	928
436	76	77	2800	0	1150	1011
437	40	52	?	0	?	594
438	63	74	?	0	?	733
439	57	61	?	0	1600	683
440	96	98	5275	5985	1250	1170
442	98	94	6050	7632	2330	2527
466	89	84	4100	0	1400	1443
467	79	81	3000	0	1075	1243
468	70	82	3400	3745	1165	829
469	77	85	4320	5877	1175	1188
470	36	41	2400	2955	500	978
471	92	90	4800	6547	1335	1163
472	95	100	3200	4487	1200	890
493	137	142	4650	0	1110	1368
494	230	235	8550	11312	2365	2133
496	240	265	14025	18579	4520	4440
497	103	105	4000	5286	1430	1274
498	91	106	4690	6974	1700	1793
499	169	170	7900	10146	1930	1886
501	184	202	13770	17722	4350	5110
502	143	149	7890	9506	2175	3029
555	50	76	2225	0	600	764
561	121	126	7450	8849	2060	2300
588	237	258	13525	16619	4950	4424
622	137	132	13120	13440	3200	3008
Totals	3355	3547	162080	171820	50565	51382

Population Zones for Bison in Saskatchewan



Zone Boundaries:

North/South #5 Highway

East/West #2 Highway

North
Battleford

City of North Battleford
1291 - 101st Street
P.O. Box 460

North Battleford
Saskatchewan
Canada S9A 2Y6

PH: (306) 445-1700
FAX: (306) 445-0411

August 26, 1998

Mr. Al Christensen
BMG Business Management Group
#217 3501 8th Street E
SASKATOON, SASK
S7H 0W5

Dear Mr. Christensen:

This is to update you on the planned reconstruction of roadways in Parsons Industrial Park. Hereford Street is the road that leads directly to the site of the proposed bison processing plant. It is also the main entrance to the Industrial Park from Highway #16.

Over the next several weeks, Hereford Street, Thatcher Avenue, Marquis Avenue, and Holstein Street will be rebuilt to accommodate heavy transport traffic.

The rebuild is necessary to service new industries such as CanGro Feed Processors and Cargill's high through-put elevator. As well, Hereford Street services the Pool Service Centre and Heartland Livestock.

We are confident that our plan to relocate the existing intersection of Highways #40 and #16 eastward to align with Hereford Street will greatly enhance transport traffic.

When North Battleford is selected as the site for the proposed bison processing plant, Hereford Street will be extended to the site.

Thank you.

Sincerely,

W Standbrook

Wayne C. Standbrook
DIRECTOR OF ECONOMIC DEVELOPMENT

WCS/ctk

Marian Press

Aug. 25/98

Bison Plant TAX ~~EST~~.
Parson's Park.

10 ACRES LAND SERVICED.
1,500,000 Plant.
Special PURPOSE classification

Est. Fair Value:

Land - 490,000
Bldg - 1,500,000
± 1,000,000

Mill Rate .017740
Est. Tax $ 26,384
Rounded ± 30,000.00

Est only
Based on over 12 years of cost of Quality Printing

Yours truly,
H. A. Braddford.

Appendix 7.4

Member Survey for Investment in a Plant

CORPORATE AND INVESTMENT STRUCTURING FOR A PROPOSED BISON SLAUGHTER PLANT

Results of a Saskatchewan Member Survey

In March of this year a survey was sent out to members of the Saskatchewan Bison Association which asked for input into proposed plant structure, amount of investment by producers and a list of outlets in which Bison meat is distributed in Saskatchewan. (See appendices)

Forty-two per cent or one hundred and one of the approximately two hundred forty surveys sent out were returned by respondents. This is an excellent return for a mailout survey.

The reported size of respondent Bison herds ranged from zero to three hundred head. In total, 6,363 head were reported. Approximately forty-four per cent of the reported numbers were bred females.

The reported number of Bison in Saskatchewan from the June, 1997 count totalled 7,749. It appears that the number of Bison in Saskatchewan has significantly increased since that time as the survey count was 6,363, which represented only forty-two per cent of returns. A second count in the month of June, 1998 would provide useful information.

Some results of the survey are recorded in the tables below. More information can be obtained from the data depending upon the requirements of the Saskatchewan Bison Association and the format in which the material will be used.

General Respondent Information

# of Respondents	Total Herd Reported	Total Reported Bred Females
101/240	6,363 head	2,782 or 44% of total

Plant Structure Choice

Choice:	First Choice	Second Choice	Third Choice
Type Structure:	(% rounded off)		
New Generation:	43/101 or 43%	43/101 or 43%	4/101 or 4%
New Rockford:	49/101 or 49%	29/101 or 29%	10/101 or 10%
Partner:	4/101 or 4%	7/101 or 7%	52/101 or 51%
Private:	3/101 or 3%	9/101 or 9%	10/101 or 10%
Other:	2/101 or 2%	1/101 or 1%	2/101 or 2%
None:	0/101 or 0%	12/101 or 12%	23/101 or 23%
Totals Respondents	101 or 101%	101 or 100%	101 or 100%

Investment

Investment Amount:	If in Saskatchewan:	Other Province:
$5,000	27/101 or 27%	47/101 or 47%
$5,000 to $10,000	47/101 or 47%	19/101 or 19%
Over $10,000	21/101 or 21%	6/101 or 6%
None	6/101 or 6%	29/101 or 29%
Totals:	101 or 101% (rounded off)	101 or 101%

Food Outlets:

Groceries:	Processors/Suppliers:	Restaurants:
Cathedral Meats, Regina	Watson Meat Processors	Willies Drive In, Wadena
B.B. #2, Regina	Drake Meat Processors	Country Squire, Fort Qu'Appelle
Birch Hills Co-op, Birch Hills	Boyorski's Butcher Block, Saskatoon	Country Squire, Moosimin
IGA, Humboldt	The Country Butcher, Saskatoon	Burger Pit, Foam Lake
Kouris Market, Ponteix, Sask.	Kitsaki Meats, LaRonge	Burger Pit, Southey
C & S Services Ltd., Candle Lake	Elk Valley Processors, Kitscoty, Alberta	Queensbury Downs, Regina
Park Centre Foods, Waskesiu, Sask.	Prairie Meats, Saskatoon	Bear Claw Lodge, Kenosee
	Kindersley Packers, Kindersley, Sask.	Waneskewan, Saskatoon
	Game Market Makers, D'Arcy, Sask.	The Diplomat, Regina
	Triple "E" Bison Ranch	Rolling Thunder Concession, Saskatoon
	Big Bob Meats, Rose Valley and Regina	Battleford Curling Club, North Battleford
	Drake Meats, Drake	Grainfields, Saskatoon, Regina
	Al's Meats Strasbourg	Third and Main, Big River
	Willow Ridge Bison, Wilkie, Sask.	Damar Shell, Melfort
	Broken Arrow Buffalo Co.	FasGas Restaurant, Birch Hills
	Tran's Packers, Swift Current	Smitty's, Melfort

Groceries:	Processors/Suppliers:	Restaurants:
	St. Louis Big Way	David's Restaurant, Lloydminster, Alta.
	Fort Rabot Game Ranch	The Stopping Place, Ruthilda
		Petro-Can Restaurant, Rosetown
		Charlie's Place, Wishart
		Kemway Lanes, Humboldt
		Heidleberg, Unity
		Burger at the sister Two, Delisle
		Ponteix Cafe, Ponteix
		Delta Hotel
		Ramada Hotel

Appendix 7.5

University of Saskatchewan - Cost of Equipment List

Sheet1

Bison Plant - Cost New Vs Used

Please note -Costs are approximate for used since prices will change upon availability

			New-Cnd $	Used Cnd $
Building	12,000 sq. ft	$130.00 sq. ft	1,560,000.00	N/A
Holding Pens	10- 20 x 20	2700.00/pen	27,000.00	N/A
Storage Building	3000 sq. ft	25.00 sq. ft	75,000.00	N/A
Land	300 x350		70,000.00	N/A
Paving	Building frontage & loading		30,000.00	N/A
Total Building			**1,762,000.00**	**1,762,000.00**
Equipment (Kill)				
Rails (Hanging)	400 ft	$100.00/linft	40,000.00	15,000.00
Hooks	125 pcs	50.00 ea.	6,250.00	2,500.00
Boiler			25,000.00	14,000.00
Water Heater			5,000.00	5,000.00
Hoist			3,200.00	1,500.00
Hide puller			4,500.00	2,500.00
Air Compressor			8,500.00	4,000.00
Pressure Washer			4,000.00	2,000.00
Equipment from #1 on Attached sheets			135,000.00	68,000.00
Total Slaughter			**231,450.00**	**114,500.00**
Sausage Processing				
Mixer Grinder			18,000.00	8,000.00
Mixer			7,000.00	2,500.00
Slicer			11,000.00	6,000.00
Tenderizer			2,500.00	1,000.00
Vacuum stuffer			85,000.00	25,000.00
Smokehouse			80,000.00	30,000.00
Packaging machines			35,000.00	15,000.00
Scales			4,500.00	3,500.00
Injector (Pickle)			50,000.00	20,000.00
Tables, Stands S/S			6,000.00	2,500.00
Misc. (tubs, Knifes, carts acc.)			15,000.00	9,000.00
Total Saus Process			**294,000.00**	**122,500.00**
Office	(Approx.)		**40,000.00**	**25,000.00**
Misc.				
Tractor/Bobcat			35,000.00	15,000.00
Truck			20,000.00	9,000.00
Pallet Jacks	3	950.00	2,850.00	1,500.00
Fork Lift			18,000.00	7,000.00
Total Misc.			**75,850.00**	**32,500.00**
TOTAL			**2,403,300.00**	**2,056,500.00**

10 Head per Hour

1989 USD

	Number of Units	Class	Cost per Unit	
VERT STUNNING PEN GATE	1	8	$765.00	FIX
REVOLVING KNKING PEN DOOR AND WALK	1	8	$1,520.00	FIX
FABRICATED BLEEDING I-BEAMS	2	10	$1,830.00	FIX
2000 LB CAPACITY HOIST	1	8	$1,460.00	FIX
ACCESSORIES TO HOIST ABOVE	1	8	$325.00	FIX
2000 LB TRANSFER HOIST	1	8	$1,300.00	FIX
ACCESSORIES TO TRANSFER HOIST	1	8	$275.00	FIX
BLOOD AND WATER DRAIN	1	5	$164.00	FIX
GUIDE PLATE & RAIL SECTION FOR 12 IN HANGARS	1	10	$187.00	FIX
SPREADER FOR ABOVE GP & RS	1	8	$123.00	FIX
30 IN HEAD FLUSHING CABINET	1	5	$1,050.00	FIX
HIDE PULLER	1	10	$5,040.00	FIX
HIDE CHAIN STERILIZER	1	5	$233.00	FIX
RAIL TURNER AIR OPERATED	1	6	$2,965.00	FIX
EVISCERATING DROPPER/SPREADER	1	8	$3,895.00	FIX
TRACK SCALE 1500 LB CAP	1	15	$5,825.00	FIX
PLUCK AND GULLET TABLE	1	15	$730.00	FIX
6 FT HEAD WORKING TABLE	1	15	$1,500.00	FIX
DURASAN BOARD FOR HEAD TABLE	1	5	$95.00	FIX
SPLITTING SAW-STERILIZER & ACCESSORIES	1	8	$3,750.00	FIX
BRISKET SAW-STERILIZER & ACCESSORIES	1	8	$2,645.00	FIX
HIDE CHUTE	1	15	$685.00	FIX
ELEV PAUNCH TRUCK & TRAY	1	6	$2,140.00	FIX
TROLLEY BRAKES RAIL ASSEMBLY	1	10	$375.00	FIX
AIR DEHIDERS	3	8	$905.00	FIX
LUBRICATOR UNITS FOR DEHIDERS	3	8	$110.00	FIX
25 HP AIR COMPRESSOR	1	12	$7,886.00	FIX
FOOT OPERATED LAVATORIES	3	10	$49.50	FIX
KNIFE BOXES FOR LAVATORIES	3	10	$49.50	FIX
HEATING ELEMENTS FOR LAV	1	6	$42.50	FIX
DRINKING FOUNTAIN FOR LAVATORIES	1	5	$43.00	FIX
2 SIDE RACK RETAINING CAGES	2	15	$2,850.00	FIX
ELEVATING AIR-HYDRAULIC WASH PLATFORM	1	10	$2,684.00	FIX
INSPEC PLATFORM WITH LAV STAND	1	15	$400.00	FIX
ELEVATING TRANSFER PLATFORM	1	10	$2,770.00	FIX
SPLITTING PLATFORM	1	15	$672.00	FIX
HEAD INSP STAND -4 LOOPS	1	8	$528.00	FIX
LIVESTOCK SCALE 2000 LB CAP	1	10	$1,800.00	FIX
HOSE STATIONS AND EQUIPMENT	3	4	$425.00	FIX
WATER HEATERS-180 DEG 84 GAL	2	12	$4,050.00	FIX
HI-PRES BEEF WASH PUMP	1	8	$1,715.00	FIX
HEAVY DUTY CATTLE STUNNER	1	8	$600.00	FIX
LOADS FOR STUNNER(YR)	1	1	$0.08	HEAD
BEEF TROLLEYS	300	15	$17.75	FIX
HOUSING(100 SQ FT)BRKG	15	30	$4,500.00	FIX
BAND SAW 3HP	1	10	$3,382.00	FIX
BONE & TRIM TABLES (PER FT)	50	15	$400.00	FIX
SCALES	1	10	$4,000.00	FIX

10 Head per Hour

	Number of Units		Cost per Unit	
CONVEYOR (PER FT)	14	15	$262.50	FIX
HOUSING (100 SQ FT)HAMBURG	4.2	30	$4,500.00	FIX
CONVEYOR (3 HP)	1	10	$3,375.00	FIX
GRINDER (AND PLATES)	1	10	$3,630.00	FIX
MIXER-GRINDER	1	10	$9,900.00	FIX
STUFFER-STAINLESS STEEL	1	10	$6,595.00	FIX
MISC EQUIPMENT	1	8	$500.00	FIX
HOUSING (100 SQ FT) FABRIC	10	30	$4,500.00	FIX
SCALES	1	10	$3,000.00	FIX
BONE AND TRIM TABLE(10 FT)	1	10	$850.00	FIX
STAINLESS STEEL LAVATORIES	2	10	$375.00	FIX
VACUUM PACKAGING	1	15	$95,400.00	FIX
SHIPPING SCALES	1	10	$3,000.00	FIX
PROCESSING WORKERS-BRK	12	10	$15,000.00	HOUR
PROCESSING WORKERS-HBGR	2	10	$15,000.00	HOUR
BOXING WORKERS-HBGR	2	10	$15,000.00	HOUR
PROCESSING WORKERS-SUBPRIM	4	10	$15,000.00	HOUR
BOXING WORKERS-SUBPRIM	2	10	$15,000.00	HOUR
CORRALS CONSTRUCTION (BY 100 SQ FT)	80	10	$104.00	FIX
CORRALS-PARTIAL BLDG (PER 100 SQ FT)	60	30	$220.00	FIX
KILL FLOOR (PER 100 SQ FT)	15	30	$5,500.00	FIX
CHILL ROOM (100 SQ FT)	9	20	$9,000.00	FIX
HOLDING COOLER (100 SQ FT)	13	20	$9,000.00	FIX
REFRIGERATION SYSTEM FOR CARCASSES	1	20	$60,000.00	FIX
BLAST FREEZER REFRIGE EQUIP	1	15	$25,000.00	FIX
HOLDING FREEZER REFRIG EQUIP	1	15	$35,000.00	FIX
BLDG SHELL FOR FREEZER-480 SQ FT AT 90	1	30	$43,200.00	FIX
BOX COOLER BLDG (100 SQ FT)	10	25	$9,000.00	FIX
BOX COOLER EQUIP (10 HD)	225	15	$300.00	FIX
RENDERING KILL	1	20	$150,000.00	FIX
POLLUTION (5000 CU YD)	1	30	$3,000.00	FIX
LABOR-KILL FLOOR-MIXED SKILLS AND ASSIGNMENT	12	11	$15,000.00	HOUR
BUYERS (CATTLE)	1	1	$22,000.00	YEAR
OFFAL AND BOX MACHINE	1	10	$15,000.00	HOUR
HIDES AND RENDERING	1	12	$15,000.00	HOUR
COOLER WORKER	1	14	$15,000.00	HOUR
CORRAL WORKER	1	6	$15,000.00	HOUR
MAINTENANCE (ELEC) (STORE ROOM)	1	21	$15,000.00	HOUR
MISC LABOR	1	4	$15,000.00	HOUR
ELECTRICITY (PER HEAD) KILL	1	0	$0.50	HEAD
ELECTRICITY (PER HEAD) RENDER	1	0	$0.40	HEAD
GAS BOILER COSTS	1	0	$0.25	HEAD
WATER (ALL USES-800 GAL PER HD)	1	0	$0.64	HEAD
BOX-BOXES (9 PER HD AT 1.00 EACH)	1	0	$9.00	HEAD
BOX-PLASTIC BAGS (18 PER HD)	1	0	$5.40	HEAD
SEWAGE (PER HD)	1	0	$0.25	HEAD
STEERS (PER HEAD)	1	0	$740.98	HEAD
REVENUES-BOXED SUBPRIMALS	1	0	$717.22	HEAD

10 Head per Hour

	Number of Units		Cost per Unit	
REVENUES-CARCASS-KILL	1	0	$672.26	CARCASS
REVENUES-HIDE AND OFFALL	1	0	$79.88	HEAD
REVENUES-GR BEEF ADD TO BOXED	1	0	$12.79	HEAD
REVENUES-FAT AND BONE-ADD TO BOXED	1	0	$5.68	HEAD
KILL SANITATION LABOR	1	5	$15,000.00	HOUR
BOXED SANITATION LABOR	1	5	$15,000.00	HOUR
KILL SANITATION SUPR	1	8	$15,000.00	HOUR
BOXED SANITATION SUPR	1	8	$15,000.00	HOUR
KILL PARTS AND EQUIP INVENT	1	0	$28,000.00	FIX
BOXED PARTS AND EQUIP INVENT	1	0	$12,000.00	FIX
KILL GRADING FEE	0.5	1	$57,600.00	GRADE
BOXED GRADING FEE	0.5	1	$57,600.00	GRADE
KILL INSPECTION OV FEE	0.5	1	$51,760.00	INSPECT
BOX INSPECTION OV FEE	0.5	1	$51,760.00	INSPECT
PERSONNEL SALES FORCE	1	1	$22,000.00	YEAR
TELEPHONE BILL	1	1	$0.75	HEAD
LAND COSTS	12	99	$6,000.00	FIX
VEHICLES FOR BUYERS	1	5	$8,000.00	FIX
BUYERS RADIO EQUIP	1	8	$3,000.00	FIX
FUEL AND MAINTENANCE-BUYER VEHICLES	1	0	$1,050.00	YEAR
KILL PARKING LOT	36	15	$281.25	FIX
BOX PARKING LOT	23	15	$281.25	FIX
KILL SUPER LABOR	1	1	$22,000.00	YEAR
BOXED SUPER LABOR	1	1	$22,000.00	YEAR
COOLER SUPERVISOR	1	1	$22,000.00	YEAR
WASTE AND MISC SUPER	1	1	$22,000.00	YEAR
PLANT MANAGER	1	1	$42,000.00	YEAR
CONTROLLER	1	1	$38,000.00	YEAR
OFFICE MANAGER	1	1	$21,000.00	YEAR
PHONE RECEPT	1	1	$9,500.00	YEAR
SECRETARY	1	1	$10,500.00	YEAR
BOOKKEEPER	1	1	$9,000.00	YEAR
BOOKKEEPER	1	1	$12,000.00	YEAR
ASST PLANT MANAGER	1	1	$30,000.00	YEAR
FEED FOR CATTLE	1	0	$0.10	HEAD
DIRECT-SUPPLIES KILL	1	0	$0.90	HEAD
BOXED DIRECT SUPPLIES BRK	12	0	$200.00	YEAR
BOXED DIRECT SUPPLIES FAB	6	0	$200.00	YEAR
BOXED DIRECT SUPPLIES HMBGR	4	0	$200.00	YEAR
SECURITY PEOPLE	2	5	$15,000.00	HOUR
ACCOUNTS RECEIVABLE	1	0	$3.13	HEAD
LICENSE CERTIFICATES	1	0	$1,500.00	YEAR
ENZYMES	1	0	$3,600.00	YEAR
COMPUTER	1	7	$10,000.00	FIX
KILL-SANITATION & CLEANUP SUPPLIES	1	1	$0.30	HEAD
BOXED-SANITATION & CLEANUP SUPPLIES	1	1	$0.24	HEAD
BOXED-MISC BOILER COSTS	1	1	$0.05	HEAD
KILL-LAUNDRY INVESTMENT	1	7	$5,000.00	FIX

7 15,000 AVG

10 Head per Hour

	Number of Units		Cost per Unit	
BOXED-LAUNDRY INVESTMENT	1	7	$1,000.00	FIX
SHACKLES	4	15	$42.90	FIX
OFFICE SPACE(100 SQ.FT.)	5	30	$4,500.00	FIX
99 10 HEAD PER HOUR REV 4/21/89 9	9	9	#########	9999999

Appendix 7.6

Thermo Design Insulation Ltd. Information

THERMO DESIGN INSULATION LTD.

OFFICE & SHOP 5909 - 83 STREET • EDMONTON • ALBERTA • CANADA • T6E 4Y3
TELEPHONE: (403) 468-2077 FAX: (403) 465-2683

Tuesday, September 22, 1998

Business Management Group
217, 3501 – 8th Street East
Saskatoon SK S7H 0W5

Attention: **Al Christensen**

Reference: **Proposed Buffalo Processing Facility**

Thank you for your inquiry about utilizing Zer-O-Loc composite panels in the construction of your proposed buffalo processing facility to be located in Saskatchewan.

To answer some of your questions about building costs, I would recommend that budgets at this developmental stage should include $130.00 per square foot of building area. This is a very conservative value and would include for the specialized construction requirements for freezers, coolers and associated refrigeration systems that are required in a meat processing facility. This would not include meat processing equipment or rails for movement of the carcasses through the facility.

Please be aware that the composite panel forms the exterior wall at the same time as being a freezer wall or cooler wall and hence is actually part of the building structure. This is a more modern building technique that is cost effective as opposed to building a traditional wall and then applying adequate insulation to make the freezer or cooler spaces function as intended. Therefore a separate number for freezers and coolers as part of equipment costs is redundant.

Thermo Design Insulation have been involved in many meat processing facilities across Western Canada. In Saskatoon, Thermo Design Insulation have completed several different projects with Mitchell Gourmet Foods, (formerly Intercontinental Packers), Federated Co-operatives, Versacold, Bridge Brand Foods and several others. We recently completed the expansion of Thomson Meats in Melfort, an expansion for Sunnyland Poultry in Wynyard, and several projects at Moose Jaw Packers. Our Saskatchewan list is extensive.